

**INCIDENCE OF DERMATOLOGICAL DISORDERS AMONG  
PAEDIATRIC POPULATION IN SKIN OUTPATIENT  
DEPARTMENT AT GOVERNMENT  
RAJAJI HOSPITAL, MADURAI.**

**M.Sc (NURSING) DEGREE EXAMINATION**

**BRANCH – II CHILD HEALTH NURSING**

**COLLEGE OF NURSING**

**MADURAI MEDICAL COLLEGE, MADURAI – 20.**



*A dissertation submitted to*

**THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY**

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*In partial fulfillment of the requirement for the degree of*

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Approved by Dissertation committee on

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**OCTOBER 2018**

## **CERTIFICATE**

This is to certify that this dissertation titled, **“INCIDENCE OF DERMATOLOGICAL DISORDERS AMONG PAEDIATRIC POPULATION IN SKIN OUTPATIENT DEPARTMENT AT GOVERNMENT RAJAJI HOSPITAL, MADURAI”** is a bonafide work done by **MISS.KALYANI .C.,** M.Sc (N) Student, College of Nursing, Madurai Medical College, Madurai – 20, submitted to THE TAMILNADU DR.M.G.R. MEDICAL UNIVERSITY, CHENNAI in partial fulfillment of the university rules and regulations towards the award of the degree of **MASTER OF SCIENCE IN NURSING, Branch II- Child Health Nursing,** under our guidance and supervision during the academic period from 2016-2018.

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# CERTIFICATE

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**The wise and confident acknowledge this help with gratitude.**

**- Alfred North Whitehead**

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## ABSTRACT

**Title:** Incidence of dermatological disorders among Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai. **Objectives:** To assess the incidence of dermatological disorders among male and female Paediatric population in skin outpatient department. To associate the dermatological disorders among male and female Paediatric population in skin outpatient department. **Hypotheses:** There is a significant difference in the incidence of dermatological disorders among male and female Paediatric population. There is a significant association between the male and female Paediatric population in Skin Outpatient Department with their selected socio demographic variables. **Methodology:** Non experimental descriptive research design was used to select 150 subjects by Non-probability (Consecutive) sampling. **Results:** This study revealed that majority of the Paediatric population, in male 82 (54.7 %) in female 68 (45.33%) were had dermatological disorders. **Conclusion:** The study findings evidence that among Paediatric population male were had more dermatological disorders than the female Paediatric population.

**Key words:** Dermatological disorders, Paediatric population



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# *Introduction*

# **CHAPTER – I**

## **INTRODUCTION**

**“Children are mirrors, they reflect back to us all we say and do”.**

**Pam Leo**

Children are gift to this world, and as such, it is society’s responsibility to nurture and care for them. In the past, health was denned simply as the absence of disease, health was measured by monitoring the mortality and morbidity of a group. Over the pasts century however, the focus of health has shifted to disease prevention, health promotion and wellness. The world Health Organization (2011) dense health as “a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity”.

Children are vital to the nation’s present and its future. Parents, grandparents, aunts, and uncles are usually committed to providing every advantage possible to the children in their families, and to ensuring that they are healthy and have the opportunities that they need to fulfill their potential. Communities vary considerably in their commitment to the collective health of children and in the resources that they make available to meet children’s needs. This is reflected in the ways in which communities address their collective commitment to children, specifically to their health.

Children are future of our society. Their overall health has improved, and rates of death and illness in some areas have decreased, but we still must focus on children’s health in the globally. Habits and practices established in childhood have pro- found effects on health and illness throughout life. As a society, creating a population that cares about children and promotes preventive and quality health care and positive

lifestyle choices is crucial. Pediatric nurses play a major role in this task. They are often “in the trenches” advocating on various issues, drawing attention to the importance of health care for children, encouraging a focus on education and prevention, and assisting families who lack resources or access to health care.

Skin is the largest organ of the body, with a total area of about 20 square feet. The skin is an extensive organ which forms the outer covering of the body. It is continuous with mucous membrane lining of the body orifices. The superficial layer is the epidermis made up of stratified squamous epithelium. Deeper layer is the dermis made up of connective tissue. There are capillary loops, tactile corpuscles, collagen fibers, elastic fibers, adipose tissue and plexuses of nerve fibers in the dermis.

Skin is a highly vascular organ. It derives its arterial blood from a number of plexuses. Appendages of skin is hair, Sebaceous glands, Sweet glands and nails. Skin is the skin protects us from microbes and the elements, helps regulate body temperature and permits the sensations of touch, heat, cold.

The skin is major importance in our perception of body image so that psychological disturbances induced by skin problems may be out of proportion to their medical significance. "Skin condition" and "skin disorder" are used interchangeably to describe various skin problems, from small red bumps on the skin to widespread rashes. Some skin conditions can be unsightly but harmless, while others may be contagious. Many skin conditions are also itchy or painful. Allergic skin conditions occur when allergens (certain foods, animal dander, wool, or soaps, for example) trigger an immune system response, such as redness and itching. Viruses, fungi, bacteria, or parasites can also cause skin issues to develop. Some skin problems have a genetic component. For example, eczema, which causes weeping, blister-like rashes, is more common in allergy-prone families. To diagnose skin conditions, typically consider a person's



medical history and physical symptoms. Assessing the size, shape, location, and color of bumps, blisters, and rashes can help to detect the exact cause. Other non-skin symptoms may offer clues as well. Sometimes diagnostics must remove a growth or take a skin sample for examination under a microscope.

Macule is a circumscribed area of change in skin color without any change in consistency. A macule may be hyperpigmented. Papule is a solid lesion  $< 0.5\text{cm}$  in diameter with major part of it projecting above the skin. Papules may be dome shaped, flat topped, conical, filiform or umblicated surface or verrucous. A papule which is  $> 0.5\text{cm}$  in size and with the major part in the skin is called a nodule. Plaque is an area of altered skin consistency, the surface area of which is greater than its depth. A plaque can be elevated, depressed or flat. Wheal the characteristic lesion in urticarial, is an evanescent, pal or erythematous raised lesion which disappears within 24-48 hr. Wheals are due to dermal edema, and when the edema extends into subcutis, they are called angioderma. When the wheals are linear, the phenomenon is called dermatographism.

Blister is a circumscribed elevated, superficial fluid filled cavity. If  $< 0.5\text{cm}$ , it is a vesicle and if  $> 0.5\text{cm}$ , a bulla. Scales are flakes of stratum corneum and are diagnostic in certain dermatoses. Crusts are formed when serum, blood or pus dries on the skin surface. Erosions is a defect which involves only the epidermis and heals without a scar. Ulcer is a defect in the skin which extends into the dermis or deeper and heals with scarring. Atrophy is the reduction of some or all layers of skin. In epidermal atrophy, thinning of the epidermis leads to loss of skin texture and cigarette paper like wrinkling without depression. In dermal atrophy, loss of connective tissue of the dermis leads to depression of the lesion.

Lichenification consists of a triad of skin thickening, hyperpigmentation and increased skin markings. It is caused by repeated scratching. Burrow is a dark

serpentine, curvilinear lesion with a minute papule at one end and is diagnostic of scabies. Comedones are due to keratin plugs that form within follicular ostia and they can be done open or closed.

Most common disorders in children sore throat, ear pain, urinary tract infection, skin infection, bronchitis, bronchiolitis, common cold, sinusitis, cough, pain. Skin disorders most common in children atopic eczema, cold sores, urticaria, itching psoriasis, ring worm, scabies, vitiligo, warts and verrucas. Atopic dermatitis (AD) is the most common form of eczema and is chronic (long-lasting). It usually starts in infancy or early childhood. It is common in children with allergies and asthma, family history of atopic dermatitis. The rash appears as an itchy red patch, which may show up anywhere, but it typically shows up on the cheeks, elbow area, or around the knees. Using lubricating lotions, ointments, or creams usually improves the symptoms, but sometimes topical steroids are used.

Impetigo is a highly contagious, superficial skin infection that most commonly affects children 2- 5 years of age. Impetigo is caused by two bacteria staphylococcus aureus and streptococcus pyogenes. It is risk factors of local skin trauma, crowded living conditions, poor hygiene, warm, moist climate. There are two types of impetigo **non-bullous impetigo** typically affects the nose and mouth, **bullous impetigo** typically affects the trunk. Treatment of topical antibiotic and oral antibiotics.

Scabies is a parasitosis caused by the time mite sarcoptes scabiei var hominis characterized by intense pruritus, popular rash and excoriations. Scabies is found primarily in poor and crowded conditions. The main symptoms are intense itching that gets worse at night, and a rash of tiny red spots. The treatment of scabies is topical or oral scabicial drugs.

Atopic dermatitis is a chronic, pruritic inflammatory skin diseases characterized by intense itching with episodes of exacerbation and remissions. It occurs approximately 10 – 20 % of children. The condition is associated with atopy, which refers to a predisposition toward developing hypersensitivity reactions such eczema, asthma, and allergic rhinitis. The main symptom's are pruritis, dry, scaly skin, lichenification, small coalescing edematous papules or vesicles. The treatment of atopic dermatitis emollients, topical corticosteroids and treat pruritis with antihistamins.

Eczema is a dry, itchy skin condition. The most common type (atopic dermatitis) usually occurs in childhood. Commonly, kids with atopic dermatitis develop a red rash on their face, scalp, hands, or feet. Elbows and knees may be affected. Eczema may be chronic, but it's not contagious. It tends to be more common in families with asthma and allergy. Treatment includes medicines to relieve itch and inflammation and prevent flare-ups.

Seborrheic dermatitis is a chronic, inflammatory reaction of the skin. It is most common in the scalp but may involve the eyelids, external ear canal, nasolabial fold and inguinal region. It is mainly caused by malassezia furfur. It is more common in infancy. The main symptoms of greasy yellow scale on erythematous base, itching and burning. The treatment of seborreic dermatitis application of 2 % ketoconazole shampoo, mild topical steroids.

Molluscum contagiosum is a common skin infection caused by a virus called the molluscum virus, which produces benign raised lesions or bumps on the layers of skin. It is especially common in children 2- 5 years because they have immature immune systems and frequent physical contact with each other. It is spread by direct skin to skin contact or indirectly through touching surfaces or objects like towels, toys or clothing. It is pearly or skin colored separate, round bumps or lesions. Lesions are

smooth, firm and dome shaped with a dimple in the center and filled with a central core of waxy material. The treatment is cryotherapy, Curettage, laser therapy and topical therapy.

Tinea capitis is a dermatophyte infection of the scalp most often caused by *Trichophyton tonsurans*, occasionally by *microsporum canis*. It is particularly common in black children age 4 – 14 year. It is characterized initially by many small circular patches of alopecia in which hairs are broken off close to the hair follicle. The treatment of tinea capitis oral administration of griesofulvin 15 – 20 mg /kg/day for 5 – 7 days. Topical application o antifungal cream may be effective. Selenium sulfide lotion can be used twice per weeks.

Lichen planus is characterized by purple, polygonal, pruritic, popular eruption of unknown etiology affecting skin that can also involve the mucous membranes and nails. Lichen planus is rare in children.

Hand, foot, and mouth disease is caused by Coxsackievirus is an extremely common childhood skin infection, especially during the summer and early fall. It usually starts with fever and then develops into a non-itchy rash involving the body, including the hands and feet; it also causes mouth sores. The mouth sores are painful and can interfere with eating and drinking in some cases. It is extremely contagious, and like many viral infections, it spreads through contact, often by coughing and sneezing. Hand, foot, and mouth disease resolves on its own within a week.

Moniliasis is common in early infancy. The most common site of infection is oral cavity and presents as oral thrush. The lesions may found as scaly, papulovesicular or erythematous area with sharp border. Pain and discomfort ma present in the affected area. The treatment of moniliasis local application of nystatin, clotrimazole, amphotericin ‘B’, ketoconazole or with any antifungal agents suitable for children

Pediculosis is an obligate ectoparasite and two species infest humans. It is most frequent on children 3- 10 years. Head louse infestation is transmitted by close contact and pubic louse infestation is acquired by children from infested parents. The chief symptoms are severe pruritis involving infested region. The treatment is permethrin 1 % lotion, single 10 min application to wet hair followed by rinsing. Repeat application after 7 days. Gamma benzene hexachloride 1 % single overnight application to dry hair followed by rinsing. Second application used after 7 days.

Pityriasis alba is III defined hypopigmented macules with fine scales are seen on face, in children 2- 6 year old. The lesions are asymptomatic and clear up spontaneously after a few months. The family is reassured regarding the benign nature of the illness. Mild emollients may be useful in some cases.

Roseola is a mild viral illness. The infection commonly appears in infants and starts with a very high fever, followed by a non-itchy rash with a lacy appearance. The fever lasts for a couple of days and then resolves; typically, the fever and rash are not present at the same time. The rash appears on the chest or back first and then spreads to the rest of the body. When the fever disappears, a rash appears, which may last one to two days. The rash of roseola is not contagious. Roseola usually resolves without any treatment

### **1.1 Need for the study**

Skin disease is one of the most common human illnesses. It pervades all cultures, occurs at all ages, and affects between 30% and 70% of individuals, with even higher rates in at-risk subpopulations. Its detrimental effects on health range from physical incapacity to death (Basra and Shahrukh, 2009). Children and their families often bear the brunt of this disease burden (Mahe, 2005). The International Classification of Disease 10 classification of human disease lists more than 1,000 skin

or skin-related illnesses, a pattern dominated by a few conditions accounting for most of the skin disease burden.

Skin conditions contributed 1.79% to the global burden of disease measured in disability-adjusted life year from 306 diseases and injuries in 2013. Individual skin diseases varied in size from 0.38% of total burden for dermatitis (atopic, contact, and seborrheic dermatitis), 0.29% for acne vulgaris, 0.19% for psoriasis, 0.19% for urticaria, 0.16% for viral skin diseases, 0.15% for fungal skin diseases, 0.07% for scabies, 0.06% for malignant skin melanoma, 0.05% for pyoderma, 0.04% for cellulitis, 0.03% for keratinocyte carcinoma, 0.03% for decubitus ulcer, and 0.01% for alopecia areata. All other skin and subcutaneous diseases composed 0.12% of total disability-adjusted life year.

The world health organization drew attention to the growing global burden of skin disorders in developing countries. A total of 18 prevalence studies of the general population in developing countries can be considered representative of large geographical areas; of these, 13 provided data specific to children, 17 to rural areas, and 4 to urban areas. All reported high prevalence for skin diseases (21-87%), the following disorders being the commonest in children: pyoderma (prevalence range 0.2-35%, 6.9-35% in sub-Saharan Africa), tinea capitis (1-19.7%), scabies (0.2-24%, 1.3-17% in sub-Saharan Africa), viral skin disorders (0.4-9%, mainly molluscum contagiosum), pediculosis capitis (0-57%), dermatitis (0-5%), and reactions due to insect bites (0-7.2%). Children present a higher prevalence rate than adults for pyoderma (especially those under 5 years), certain mycoses (tinea capitis), and, to a lesser extent, scabies. In addition, there have been reports of a particularly high prevalence of pyoderma and/or scabies in more limited settings, or in particular communities.

In global burden of skin disease's in US life expectancy on 2013 Bullous diseases 101 (0.44 %), non-cancerous skin growths 57 (0.25 %), cutaneous lymphoma 87 ( 0.38 %), drug eruptions 109 ( 0.48 %), viral ( HSV/HZV) and fungal diseases' , congenital abnormalities 100 ( 0.44 %), ulcers 1392 ( 6.02 %), wounds and burns 3453 ( 15.05 %).

In Tamilnadu a cross-sectional prospective study was conducted according to the Indian Journal Paediatric Dermatology prevalence of skin disorders. A total of 1000 children between the age group of 5 and 14 years were examined for diseases of the skin and appendages. Data were coded and analyzed. The overall prevalence of skin diseases was 68.2%. Almost 53 types of skin lesions were identified among the students; of these, 15 were infectious, 35 were noninfectious, and three were nutritional dermatoses. Infectious dermatoses were seen in 346 (50.73%), noninfectious in 253 (37.10%), and nutritional deficiency dermatoses in 83 (12.17%) children. The top three conditions, i.e.. pediculosis capitis (21%), scabies (11%), and bacterial infections (8.52%) contributed 40.52% of the total burden of skin diseases. Thus, simple approaches on promoting hygiene, sanitation, improving awareness regarding dermatoses, and provision of commonly required drugs at the grass-root level may bring down the burden of skin diseases drastically.

In Government Rajaji Hospital, Madurai in Skin outpatient department the average children attended with dermatological disorders was 8069 in 2017. Children's commonly affected with impetigo, scabies, molluscum contagiosum, urticarial, atopic dermatitis, eczema, seborrheic dermatitis compare with other skin infections. When I am posted in skin department I have seen so many children attended this department along with the parents before going to school in uniform. So I am interested to identify the problem faced by children in and around Government Rajaji Hospital, Madurai.

## **1.2 Statement of the problem**

A study to assess the incidence of dermatological disorders among Paediatric Population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.

## **1.3 Objectives**

1. To assess the incidence of dermatological disorders among male and female Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.
2. To compare the incidence of dermatological disorders among male and female Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.
3. To associate the dermatological disorders among male and female Paediatric population in skin Outpatient department at Government Rajaji Hospital, Madurai with their selected sociodemographic variables.

## **1.4 Hypotheses**

**H<sub>1</sub>:** There is a significant difference in the incidence of dermatological disorders among male and female Paediatric population in skin outpatient department at Government Rajaji Hospital, Madurai.

**H<sub>2</sub>:** There is a significant association between dermatological disorders among male and female Paediatric population in skin outpatient department with their selected socio demographic variables.

## **1.5 Operational definition**

### **Incidence**

In this study it refers to the newly occurrence of skin disorders among male and female Paediatric population in skin outpatient department, Government Rajaji Hospital, Madurai



## **Dermatological Disorders**

In this study it refers to children affected with various dermatological disorders such as impetigo, scabies, psoriasis, warts, molluscum contagiosum, pyoderma, vitiligo, pediculosis, lichen planus, tinea corporis, tinea versicolor etc.

## **Paediatric Population**

In this study Paediatric population refers to children those who attend skin outpatient department with in the age of at birth to 12 years

## **Skin Outpatient department**

In this study, it refers to diagnosed and treat the skin disorders started from 7 am to 12 pm on working days (Monday to Saturday). In an average 250 to 300 patients attended among them 25 to 30 in children attended the skin outpatient department, Government Rajaji Hospital, Madurai.

## **1.6 Assumption**

Children's age group between birth to 12 years may affected with various dermatological disorders.

## **1.7 Delimitation**

The study is limited to

- Skin Outpatient Department at Government Rajaji Hospital, Madurai.
- The study period is limited to 4-6 weeks.

## **1.8 Projected outcome**

The study helps to identify the various common dermatological disorders affected with male and female Paediatric group of population.

# *Review of Literature*

## **CHAPTER - II**

### **REVIEW OF LITERATURE**

A Literature review is a body of text that aims to review the critical points of knowledge on a particular topic of research. (American nurses association) Review of literature is one of the most important steps in the research process. It is an account of what is already known about a particular phenomenon. The main purpose of literature review is to convey to the readers about the work already done and knowledge and ideas that have been already established on a particular topic of research.

This chapter explains in detail about the review of literature and conceptual framework used for the study. A literature review is a body of text that aims to review the critical points of current knowledge including substantive findings as well as theoretical and methodological contribution to a particular topic. Literature reviews are secondary sources and as such, do not report any new or original experimental work. Also a literature review can be interpreted as a review of an abstract accomplishment.

Literature review serves a number of important functions in research process. It helps the researcher to generate ideas or to focus on a research approach, methodology, meaning tools and even type of statistical analysis that might be productive in pursuing the research problem.

In order to accomplish the goal of present study an attempt has been made to review and discuss the literature which shall cover the following areas. This chapter deals with two parts.

Section - A: Review of literature

Section – B: Conceptual framework

## **Section – A**

In this chapter, the researcher presents the review of the literature under the following heading

- Literature related to incidence of dermatological disorders among Paediatric population

### **2.1 Literature related to incidence of dermatological disorders among Paediatric population**

**Efsratios Vakitlis et al ., ( 2017 )** conducted a retrospective epidemiological study of skin diseases among pediatric population attending a tertiary dermatology referral center in Northern Greece. A total 940 children's who were referred to the outpatient clinic. As per survey report 10 most frequent diagnoses were dermatitis/eczema ( 31.5 % ), viral infections ( 12.5 % ), pigmentary disorders ( 7.4 % ), melanocytic nevi ( 5.8 % ), alopecia areata ( 5. 8 % ), acne ( 5.6 % ), nail disorders ( 3. 3 % ), vascular malformations and hemangiomas (2.9 %), psoriasis ( 2.6 % ), and bacterial infections ( 2.6 % ). Atopic dermatitis was the most prevalent dermatosis in all age groups accounting for a total of 20.9 % of the study population. Further study revealed that high incidence of various of mastocytosis ( 2.2 % ) was seen in data.

**Golfy Jose et.al (2017).** , A prospective cross sectional study was conducted in a rural salem on prevalence of common dermatoses among school children. This study reveals that infectious dermatoses were seen in 50.73 % of students, noninfectious dermatoses were seen in 37.10 % of students and nutritional deficiency dermatoses in 12.1 % of students.

**A.Shravan Kumar ( 2016 )** A study on prevalence of skin infections among school children in Hyderabad, telangana state. A community based cross sectional study was conducted. A randomly ten schools were selected. Furthermore study reveals that Varanasi city 54 % children had one or more diseases. The commonest being pediculosis capitis (35 %), pityriasis alba (12 %) acne vulgaris (8 %).

**Dr.Krina B.Patel (2016)** conducted a pediatric dermatoses encountered in dermatology outpatient department of a teaching institute. A prospective study was conducted in Skin outpatient department of GMERS medical college, sola, Ahmedabad. Furthermore study reveals that 3560 study group population there were 57.35 % male and rest female. The highest numbers of patients in the age group of > 10 to 14 years ( 41.04 %) Majority of patients presented with infections and infestations ( 52.6 %) Scabies was the most common disease found in patients. Many rare genodermatosis were observed in present study.

**Aysegul uludag et al., (2015)** conducted the incidence of skin disorders in primary and secondary school age children in canakkale, Turkey. A cross sectional study was conducted and 1957 students from five randomly selected primary and secondary schools. As per the survey report at least one skin finding was found in 79.9% of students aged 5 – 14 years. The most frequent skin findings in primary school children were acquired melanocytic nevus, post inflammatory hypopigmentation, and xerosis, while in secondary school children, the most frequent findings were acquired melanocytic nevus, acne, and post inflammatory hypopigmentation.

**Bilal Sula M.D et al., ( 2014 )** conducted a cross sectional study on prevalence of skin disorders among primary school children in Diyarbakir, Turkey. Students were administered a questionnaire. This study reveals that eczema was the most common skin diseases in the study

( 32.8%), followed by pigmentation disorders ( 17.2 %), skin infections ( 13.4 %), scalp disorders ( 10.1 %) and acne vulgaris ( 9.6 %), pityriasis alba ( 18.3 %) , pityriasis simplex ( 9.1 %), ephelides ( 8.1 %), xeroderma ( 6.8 %) and warts ( 6. 6 %).

**Hussein Odeibat MD (2014)** conducted a pattern of skin diseases among pediatric patients attending the pediatric dermatological clinic at king Hussein medical center. A total of 5004 patients were included in the study. 2577 (51.5 %) were males and 2427 (48.5 %) were females with a male to female ratio of 1.1 :1. The age ranged from one day to 15 years with a mean of  $8.6 \pm 74$  years. As per survey report revealed that bacterial infection ( 10.4 %) to be the most common entity followed by viral infections ( 10.2 %),, fungal infections ( 9.5 %) and parasitic infestation ( 5.2% ).

**Memet Erasan Bilgili (2013)** conducted a prevalence of skin diseases in a dermatology outpatient clinic in Turkey. A cross sectional retrospective study was conducted. A total of 11,040 new patients in the study. Study reveals that fungal infections ( 8.5%) contact dermatitis ( 8.5 %), urticaria ( 8.3 %), psoriasis ( 5.5 %), Viral warts ( 4.1 %), lichen simplex chronicus ( 3.0 %), atopic dermatitis ( 2.2 %) and seborrhic dermatitis ( 2.2 %).

**Bhin S.Pandhi (2013 )** identify the common skin problems in children. Atopic dermatitis is the most prevalent dermatoses in the middle east and western countries. In India infections and infestations are the most common skin problems seen in half of the cases followed by dermatitis 25%, bacterial infections 27.89 %, scabies 10.16 %, fungal and viral infections 4.65 % and 3.68 %, allergic conditions 6.5 %.

According to **Ibrahim (2013)** the most common skin diseases fund the eczema 15.81%, acne 14.71 %, dermatitis 14.7 %, viral infection 13.32 %, fungal infection 7.56 %, bacterial infection 6.96 %.

**Suman H.Tulsyan (2012)** conducted a prospective cross sectional study with school survey of dermatological disorders and associated socio economic factors in Lucknow. The study population included all the students of classes 1 to 5, aging between 5 to 14 years from the four schools. The semi structured , carry home questionnaire was used to collect the data. A total of 1448 students were include in the study. As per survey report prevalence of skin disorders was 42.3 %. Of them 32.9% students had only one skin disorders while 11.3% students had at one transmissible skin disorder. The commonest skin disorder was pityriasis alba with an overall incidence of 14.3%. Pediculosis capitis was the commonest transmissible skin disorder with an overall prevalence of 6.5%. There was statistically significant difference in the prevalence of skin disorders especially infections and infestations in students from different socio economic classes.

**Raghavendra Rao ( 2012)** conducted a cross sectional study of dermatological problems among differently abled children. The sample included 122 students of both sexes. Furthermore study reveals that total of 65 ( 53.2%) children had skin problems. Seven children had more than one skin problem. There was no significant gender difference in the distribution of the diseases. Acne was the commonest condition encountered in these children being seen in 15 ( 23.1 %) patients. Infections and infestations were detected in 25 cases ( 38.5 %)

**Bowen AM ( 2012)** collect the statistics of common Paediatric skin disorders. Study result that atopic dermatitis 5 – 20 %, seborrhic dermatitis 12 %, transient neonatal pustular melanosis 4 %, erythema toxicum neonatrum 50 % in newborn, miliaria 50 % of infants, neonatal acne 20 %, scabies 32 %.

**Ezz El- Dawela et al., ( 2011 )** conducted a cross sectional study on incidence of skin diseases among school children a survey in the Sohag Governorate by random

sampling method. The total sample of 1804 children aged 4 – 12 years were examined. Result revealed that skin disorders were observed in 748 children, yielding an overall incidence of 41.5 % and 1056 (58.5%) were clinically free from disease. Pediculosis capitis , pityriasis alba, popular urticarial, and chicken pox were the most commonly observed, accounting for 67.4% of the disorders. Infectious kin diseases represented 59.1% of the skin disorders. Rural residency, older age, female sex, overcrowding, and a low socio economic status were the significant risk factors. Only 19.5 % of the children with skin diseases had sought medical advice.

**Fawzia Farag Mostafa et al., ( 2011)** conducted the prevalence of different dermatologic diseases in infant and children in Sharkia Governorate . A cross sectional study was and conducted. Random sampling of 1860 patients both sexes with different skin diseases. Further more study reveals that the incidence of skin diseases as regard age groups was as follows 279 cases (15%) in infant group, 687 cases (36.9%) in preschool age group and 894 cases (48. 1%) in school age group. Bacterial infections were the most common diseases 436 (23.4%), cases impetigo had 410 cases (94%), parastitic infestations had 388 (20.9%) cases, pediculosis capitis had 325 (83.8%) cases, Scabies had 63 (16.2%) cases, superficial fungal infections had 304 (16.3%) cases, eczematatous had 237 (12.7%) , viral infections had 209 (11.2 %) cases were reported.

**Iqbal Bukhari (2006)** cross sectional study conducted in Saudi Arabia. Study results that most common skin diseases pigmentary disorders (91.6 %), dermatitis (26.7 %), melanocysticc nevi (68 %), poat inflammatory pigmentation (56.6 %), scars (26.8 %), acne (22.5 %), dandruff (18.1 %), pediculosis capitis (5. 2 %), eczema (3.1%).

**Nicheal Sladden ( 2004)** identify the most common infections was fund to the impetigo 42 %, scabies 6 %, dermatis and warts are that most common skin disorders , infestations 54.4 %.



## **Section - B**

### **2.2 Conceptual framework**

The conceptual framework for the present study was based on “San Francisco burden of disease and injury: determinants of health. The determinants explored into four categories such as Social / Environmental / Political determinants , Behavioural/ Individual determinants, Clinical determinants and Health outcomes. The present study was focused to web of causation of diseases based upon a model developed by San Francisco and explored determinants of health.

#### **Social / Environmental determinants**

It is an established fact that environment has a direct impact on the physical, mental and social well being of those living in it. The internal environment of man pertains to “each and every component part, every tissue, organ and organ system and their harmonious functioning within the system”. The external or macro environment consists of those things which man is expose after conception. It can be divided into physical, biological and psychological components any or all of which can affect the health of man and his susceptibility to illness. The environmental factors range from housing, water supply, psychosocial stress and family structure through social and economic support systems, to the organization of health and social welfare services.

Biological and Socio economic conditions like economic status, education, occupation, political system have long been known to influence human health. In this present study biological and socio environmental determinants of Paediatric population are genetics, low socio economic status, housing, Lack of education, climate will cause for the common dermatological problems for children.

### **Behavioral /Individual determinants**

It is composed of cultural and behavioral patterns and lifelong personal habits that have developed through process of socialization or social interaction with parents, peer groups, friends and siblings and through school and mass media. Current day health problems especially skin disorders, CHD, obesity, cancer are associated with lifestyle changes lack of sanitation, poor nutrition, personal hygiene, elementary human habits, customs and cultural patterns. The personal environment which includes the individual's way of living and life styles such as eating habits, or personal habits. In this present study behavioral and individual determinants of Paediatric population living with dermatological disorders is low family income/ poor diet/Malnutrition, poor housing facilities, overcrowded conditions, defect of gene/Error in metabolism among parents, Decrease on knowledge personal hygiene, and exposure of sunlight during summer holidays.

### **Clinical determinants**

Determinants are a factor, event, characteristics or other definable entity that bring about change in a health condition. The physical and mental traits of every human being are to some extent determined by the nature of his social environmental, political, behavioral and individual determinants. A considerable body of evidence has accumulated which indicate that there is an association between these determinants and health or illness of Paediatric population living with dermatological disorders. In this study clinical determinants of Paediatric population is further Itching, red brownish gray patches, yellow brown crust, fluid filled blisters, rashes, pigmentation, erythematous skin, fissures on foot.

## **Health outcome**

Ecology is the science of mutual relationship between living organism and their environment. The human eco system includes in addition to the natural environment all the determinants of the manmade health outcome. In this study health outcome of Paediatric population living with dermatological disorders like atopic dermatitis, impetigo, scabies, tinea capitis, warts, molluscum contagiosum.

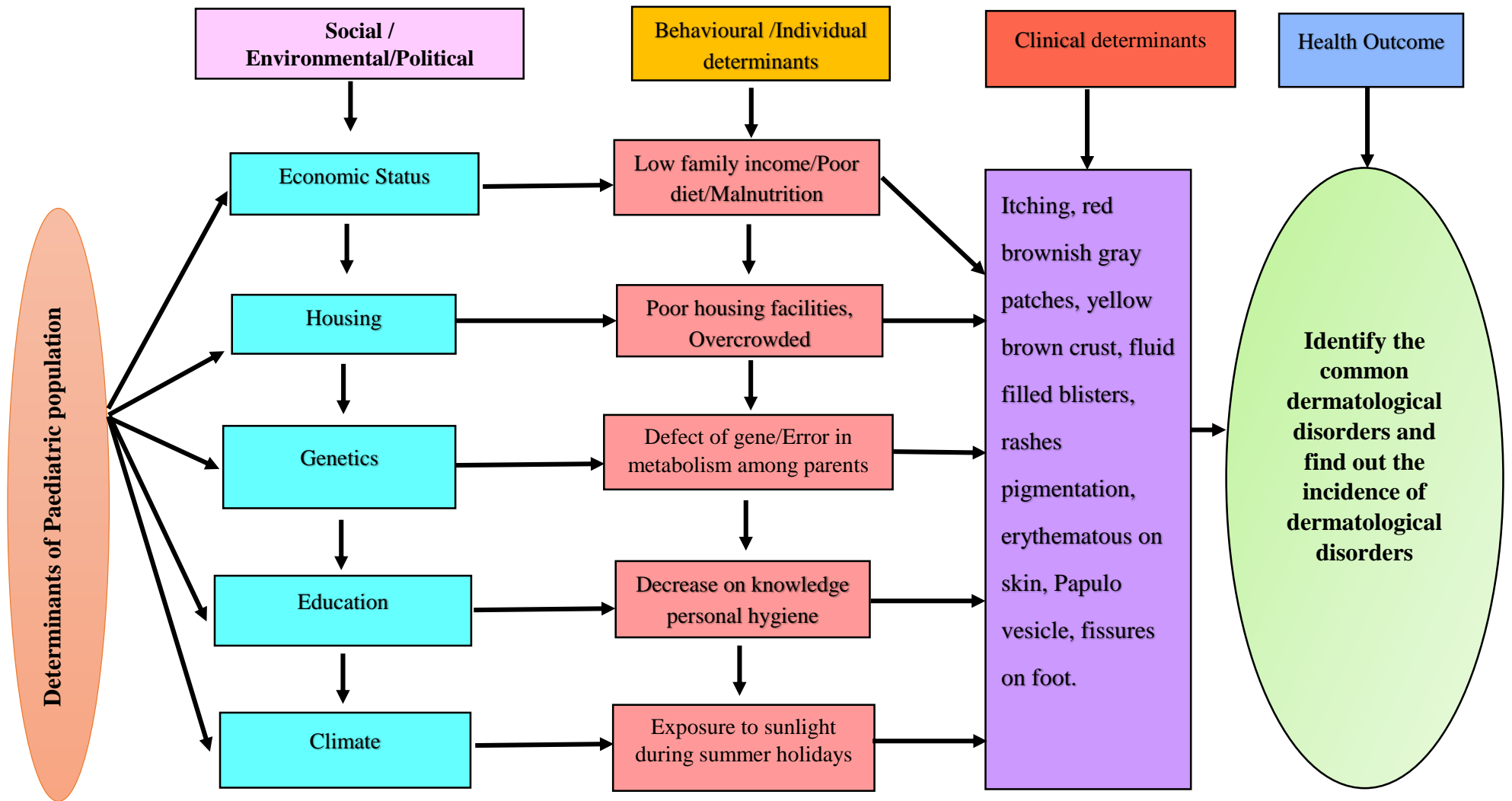


Figure: 1 Conceptual Frame Work Based on Modified San Francisco Burden of Disease and Injury: Determinants of Health

# *Research Methodology*

## **CHAPTER – III**

### **RESEARCH METHODOLOGY**

Research methodology is the systematic way of doing research to solve a problem. It comprises of the research approach, research design, statistical methods used for analyzing the data and logic behind it. (Kothari CR, 2003). On the whole it gives a general pattern of gathering and processing the research data. This chapter includes research design, setting of the study, population, sample, and inclusion and exclusion criteria for selection of sample, development and description of the tool, content validity, pilot study, data collection procedure and plan for data analysis.

#### **3.1 Research approach**

In this study, the investigator used quantitative evaluative approach.

#### **3.2 Research design**

The research design used in this study was Non experimental (Descriptive) research design.

#### **3.3 Variables**

##### **Research variables**

The research variable in the study was dermatological disorders among male and female Paediatric population.

#### **3.4 Setting of the study**

The study was conducted in Skin Outpatient Department, Government Rajaji Hospital, Madurai. It is the second largest Government medical college hospital in Tamilnadu. At present 3106 beds available in hospital and provide health care services.

### **3.5 Population**

#### **Target population**

Target population of the study was Paediatric population with dermatological disorders.

#### **Accessible population**

Accessible population of the study was Paediatric population with dermatological disorders attending Skin outpatient department at Government Rajaji Hospital, Madurai.

### **3.6 Sample**

In the present study the sample consist of the Paediatric population with dermatological disorders attending Skin outpatient department at Government Rajaji Hospital, Madurai who fulfilled the inclusion criteria.

### **3.7 Sample size**

The sample size was 150 Paediatric population in Skin Outpatient department at Government Rajaji Hospital, Madurai.

### **3.8 Sampling technique**

Sampling Technique used in the study was Non probability – (Consecutive) sampling technique.

### **3.9 Criteria for selection of sample**

The study sample was selected by the following inclusion and exclusion criteria.

#### **Inclusion criteria**

- Paediatric population less than 12 years.
- Paediatric population who were willing to participate in the study

### **Exclusion criteria**

- Paediatric population with preexisting medical disorders along with skin disorders.

### **3.10 Research tool and technique**

- The tool used for the study was survey method.
- The technique used for the study was structured interview method.

### **Description of the instrument**

#### **The tool consists of two sections**

**Section I:** Socio demographic variables

**Section II:** Dermatological disorders

**Section I** (Socio demographic variables)

It consists of socio demographic data of the clients. The socio demographic variables age, sex, residence, type of family, education, income of the family per month, types of house, number of rooms available in house, household members, pet animals at home, family history of dermatological disorders, body built, Personal hygiene.

**Section II**

Presence of Dermatological disorders.

### **3.11 Testing of the tool**

#### **Validity of the tool**

In order to measure the validity, the content and tool was given to experts in the field Child Health Nursing, Pediatrician and Dermatologist. They are judge the items for clarity, relatedness, meaningfulness and adequacy of the contents. Tools is translated into Tamil and retranslated to English to confirm language validity.



### **Reliability of the tool**

The reliability of a measuring instrument is a major criterion for assessing its quality and adequacy. Reliability is the consistency with which it measures the target attribute. The reliability of the tool is done by test retest method  $r = 0.82$ . Hence the tool is considered as reliable and is used in this study.

### **3.12 Pilot study**

Pilot study generally involves a sample of subjects drawn from the same populations as those from which the study sample will be drawn. Formal permission was obtained from the Director of Institute of Child Health and Research, and from the Head of the Department of Dermatology. The pilot study was conducted on 21.05.2018 to 27.05.2018. Thirty samples those who filled the inclusion criteria were chosen by using consecutive sampling technique. Informed oral and written consent was obtained from the care givers of the sample and data was collected. The findings of the pilot study revealed that the tool was feasible and practicable.

### **3.13 Ethical consideration**

This study was conducted after the approval from the ethical committee, Madurai Medical College, Madurai – 20. All respondents were carefully informed about the purpose of the study and their part during the study and how the privacy was guarded. Ensured confidentiality of the study result. Verbal and Written consent was obtained from all participants.

### **3.14 Data collection procedure**

The data collection was done in Skin outpatient department at Government Rajaji Hospital, Madurai, prior to data collection ethical clearance was obtained from ethical committee of Government Rajaji Hospital, Madurai and the Director of Institute of Child Health and Research Centre and from the Head of department of dermatology

to conduct the main study. Both verbal and written informed consent was obtained from all the study participants. Data collection was done for six weeks from 04/06/2018 to 13/07/2018 in Skin outpatient department at Government Rajaji Hospital, Madurai.

Session started with introduction of self, establishment of rapport, explanation regarding the purpose and nature of the study. All questionnaire was administered by researcher and observed through the diagnosis of skin disorders by Medical officer. Approximately per week 25 subjects selected by Non probability (Consecutive) sampling. Totally 150 samples were collected.

### **3.15 Plan for data analysis**

The data was analyzed according to objectives of the study by using descriptive and inferential statistics.

#### **Descriptive statistics**

Frequency and percentage was used for analyzing socio demographic variables

#### **Inferential statistics**

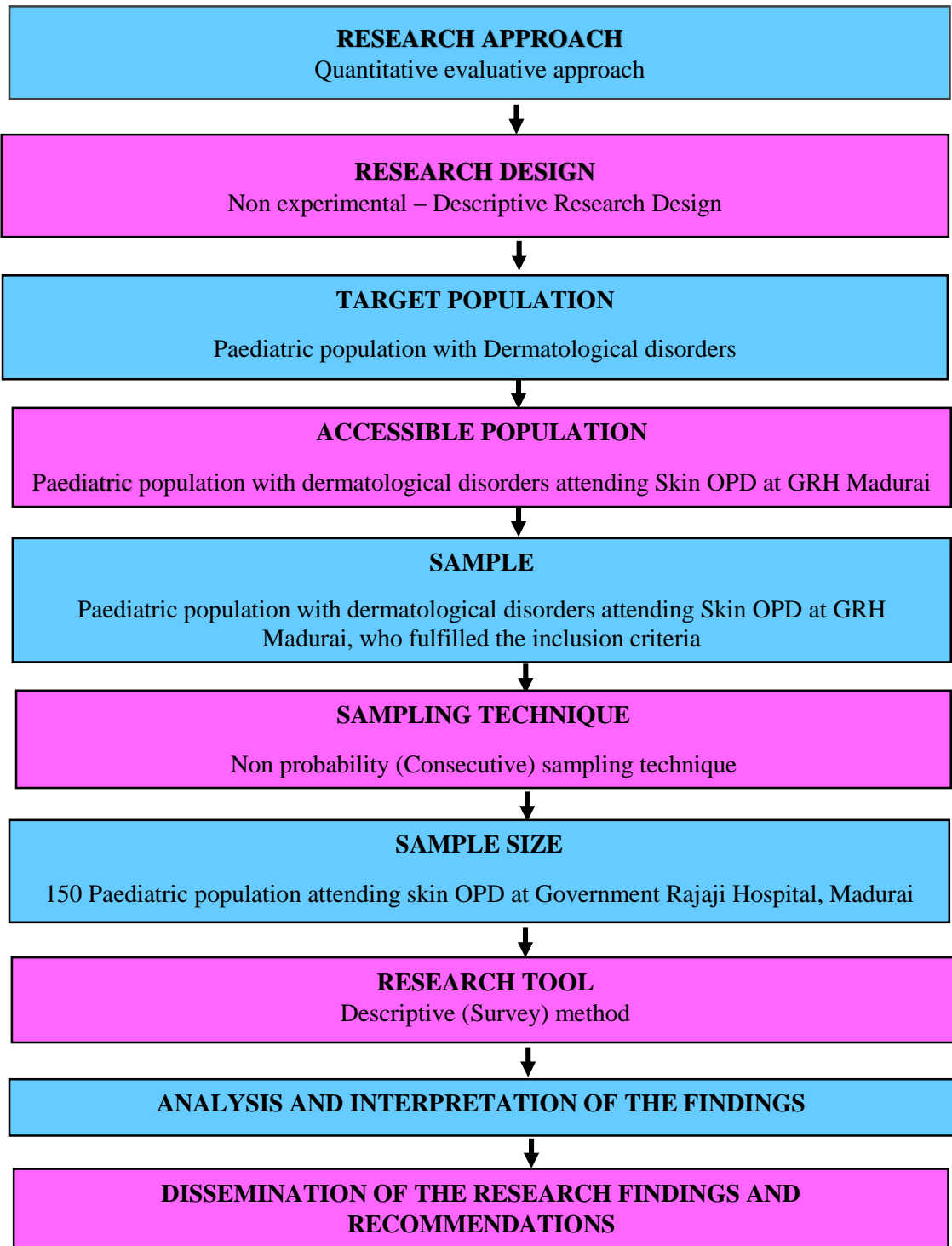
Chi square analysis was used to find out the association between dermatological disorders among Paediatric population with their selected socio demographic variables.

### **3.16 Protection of human rights**

The research proposal was approved by the dissertation committee of college of Nursing, Madurai Medical College, Madurai, Government Rajaji Hospital ethical committee, Director Institute of Child Health and Research Centre and Principal College of Nursing.

- ✓ Both verbal and written informed consent was obtained from all the study participants and the data collection was kept confidential.
- ✓ They were also explained that they may withdraw from the study at any time without any penalty.
- ✓ Anonymity and Confidentiality was maintained throughout the study.

### 3.18 Schematic Representation of Research Methodology



*Data Analysis and  
Interpretation*

## CHAPTER - IV

### DATA ANALYSIS AND INTERPRETATION

This chapter deals with the description of sample, analysis and interpretation of the data collected to evaluate the achievement of the objectives of the study. Statistical procedure enabled the investigator to deduce, summarize, organize, evaluate, interpret and communicate the numeric information. Statistical analysis is a method of rendering quantitative information meaningful and intelligible. In this chapter the data collected were edited, tabulated, analyzed and interpreted. The findings were organized and presented in the following orderly sections.

#### **4.1 Organization of data**

The analysis and interpretation of data was organized under the following sections.

##### **Section I:**

Distribution of Paediatric population according to their selected socio demographic variables.

##### **Section II:**

Describe the comparison of dermatological disorders among male and female Paediatric population.

##### **Section III:**

Describe the association between the dermatological disorders among male and female Paediatric population in Skin Outpatient department at Government Rajaji Hospital, Madurai with their selected socio demographic variables.

## SECTION – I

**Distribution of Paediatric population according to their selected socio demographic variables.**

**Table -1**

**Frequency and percentage distribution of Paediatric population according to their selected socio demographic variables.**

<b>Socio demographic Variables</b>		<b>Gender</b>				$\chi^2$
		<b>Male (n=82)</b>		<b>Female (n=68)</b>		
		<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	
<b>Age</b>	Birth to less than 1 year	6	7.32%	7	10.29%	$\chi^2=3.47$ P=0.32 DF= 3 NS
	1-3 years	25	30.48%	13	19.12%	
	4 –6 years	29	35.37%	23	33.83%	
	7 – 12 years	22	26.83%	25	36.76%	
<b>Place of residence</b>	Rural	51	62.20%	39	57.35%	$\chi^2=0.36$ P=0.54 DF = 1NS
	Urban	31	37.80%	29	42.65%	
<b>Type of family</b>	Nuclear family	64	78.05%	50	73.53%	$\chi^2=0.41$ P=0.51 DF= 1NS
	Joint family	18	21.95%	18	26.47%	
<b>Mother Educational Status</b>	No formal education	11	13.41%	10	14.71%	$\chi^2=3.15$ P=0.36 DF=3 NS
	Primary education	17	20.74%	21	30.88%	
	Higher secondary education	41	50.00%	31	45.59%	
	Graduate	13	15.85%	6	8.82%	

**n = 150**

<b>Father Educational Status</b>	No formal education	14	17.07%	11	16.18%	$\chi^2=2.04$ P=0.56 DF=3 NS
	Primary education	27	32.93%	28	41.18%	
	Higher secondary education	36	43.90%	23	33.82%	
	Graduate	5	6.10%	6	8.82%	
<b>Income of the family per month</b>	Less than Rs. 2000	0	0.00%	0	0.00%	$\chi^2=0.69$ P=0.70 DF = 3 NS
	Rs.2001 - Rs. 4000	5	6.10%	6	8.82%	
	Rs. 4001 – Rs. 6000	35	42.68%	31	45.59%	
	Rs. 6001 and above	42	51.22%	31	45.59%	
<b>Type of house</b>	Roof	3	3.66%	5	7.35%	$\chi^2=1.16$ P=0.55 DF=2 NS
	Pucca	45	54.88%	38	55.89%	
	Concrete	34	41.46%	25	36.76%	
<b>Rooms available in house</b>	One	24	29.27%	25	36.76%	$\chi^2=1.55$ P=0.66 DF=3 NS
	Two	43	52.43%	34	50.00%	
	Three	10	12.20%	5	7.36%	
	More than three	5	6.10%	4	5.88%	
<b>Number of household members</b>	2 members	0	0.00%	0	0.00%	$\chi^2=0.62$ P=0.73 DF=3 NS
	3 – 4 members	62	75.61%	50	73.53%	
	5 - 6 members	11	13.41%	12	17.65%	
	> 6 members	9	10.98%	6	8.82%	
<b>Pet animals in home</b>	Yes	0	0.00%	0	0.00%	$\chi^2=0.00$ P=1.00 DF=1NS
	No	82	100 %	68	100 %	
<b>Family history of dermatological disorders</b>	Yes	3	3.66%	4	5.88%	$\chi^2=1.22$ P=0.05 DF=1 NS
	No	79	96.34%	64	94.12%	
<b>Body built</b>	Thin body	75	91.46%	60	88.24%	$\chi^2=0.41$ P=0.52 DF=2 NS
	Moderate body	5	6.10%	7	10.29%	
	Obese	2	2.44%	1	1.47%	
<b>Personal hygiene</b>	Good	5	6.10%	6	8.82%	$\chi^2=1.03$ P=0.60 DF=2 NS
	Fair	74	90.24%	58	85.30%	
	Poor	3	3.66%	4	5.88%	

Table 1 explains the distribution of Paediatric population according to their selected socio demographic variables.

**According to the age group** in male Paediatric population, majority of the subjects 29 (35.37%) belongs to the age group between 4 - 6 years, 25 (30.48%) belongs to the age group between 1– 3 years, 22 (26.83 %) belongs to the age group between 7 – 12 years and 6 (7.32%) belongs to the age group between birth to less than 1 year. Whereas in female Paediatric population, majority of the subjects 25 (36.76 %) belongs to the age group between 7-12 years, 23 (33.83%) belongs to the age group between 4- 6 years, 13 (19.12%) belongs to the age group between 1-3 years and 7(10.29%) belongs to the age group between birth to less than 1 year.

**As far as place of residence** in male Paediatric population, majority of the subjects 51 (62.20%) were from rural area, 31 (37.80%) were from urban area. Whereas in the female Paediatric population, majority of the subjects 39 (57.35%) were from rural area, 29 (42.65%) were from urban areas.

**With respect of the type of family**, majority of the male Paediatric population 64 (78.05%) were from nuclear family, 18 (21.95%) were from joint family. Whereas in the female, majority of the subjects 50 (73.53%) were from nuclear family, 18 (26.47%) were from joint family.

**When discussing educational status of the mother** among male Paediatric population, majority of the subjects 41 (50 %) studied upto higher secondary education, 17 (20.74 %) studied upto primary education, 13 (15.85%) studied graduate education, and 11 (13.41%) had no formal education. On the other hand in the female Paediatric population majority of the subjects 31 (45.49%) studied higher secondary education, 21(30.88%) studied primary education, 10 (14.71%) had no formal education, and 6 (8.82%) studied graduate education.



**When discussing educational status of the father** among male Paediatric population, majority of the subjects 36 (43.90%) studied upto higher secondary education, 27 (32.93%) studied upto primary education, 14 (17.07%) had no formal education, and 5 (6.10%) studied upto graduate education. On the other hand in the female Paediatric population, majority of the subjects 28 (41.18%) studied upto primary education, 23 (33.82%) studied upto higher secondary education, 11 (16.18%) had no formal education, and 6 (8.82%) studied upto graduate education.

**While comparing the family income per month** among male Paediatric population, majority of the subjects 42 (51.22%) were earned more than Rs.6000, 35 (42.68%) were earned between Rs.4001-6000, 5 (6.10%) were earned between Rs.2001-4000 .Whereas in the family income per month among female Paediatric population, majority of the subjects 31 (45.59%) were earned between Rs.4001-6000 and more than 6000 and remaining 6 (8.82%) were earned between Rs. 2001-4000.

**While stating type of house** among male Paediatric population among majority of the subjects 45 (54.88%) had pucca house, 34 (41.46%) had concrete house, 3 (3.66%) had roof house. Whereas in the female Paediatric population, majority of the subjects 38 (55.89%) had pucca house, 25 (36.76%) had concrete house, 5 (7.35%) had roof house.

**While considering the rooms available in the house** among male Paediatric population, majority of the subjects 43 (52.43%) had two rooms in the house, 24 (29.27%) had one room in the house, 10 (12.20%) had three rooms in the house, 5 (6.10%) had more than three rooms in the house. Whereas in female Paediatric population 34 (50 %) had two rooms in the house, 25 (36.76 %) had one room in the house, 5 (7.36%) had three rooms in the house, 4 (5.88%) had more than three rooms in the house.

**While denoting the number of household members** in male Paediatric population, majority of the subjects 62 (75.61%) had between 3- 4 members, 11(13.41%) had between 5-6 members, 9 (10.98%) had more than 6 members. Whereas in female Paediatric population 50 (73.53%) had between 3- 4 members, 12 (17.65%) had between 5-6 members, 6 (8.82%) had more than 6 members, none of them had 2 members in this family.

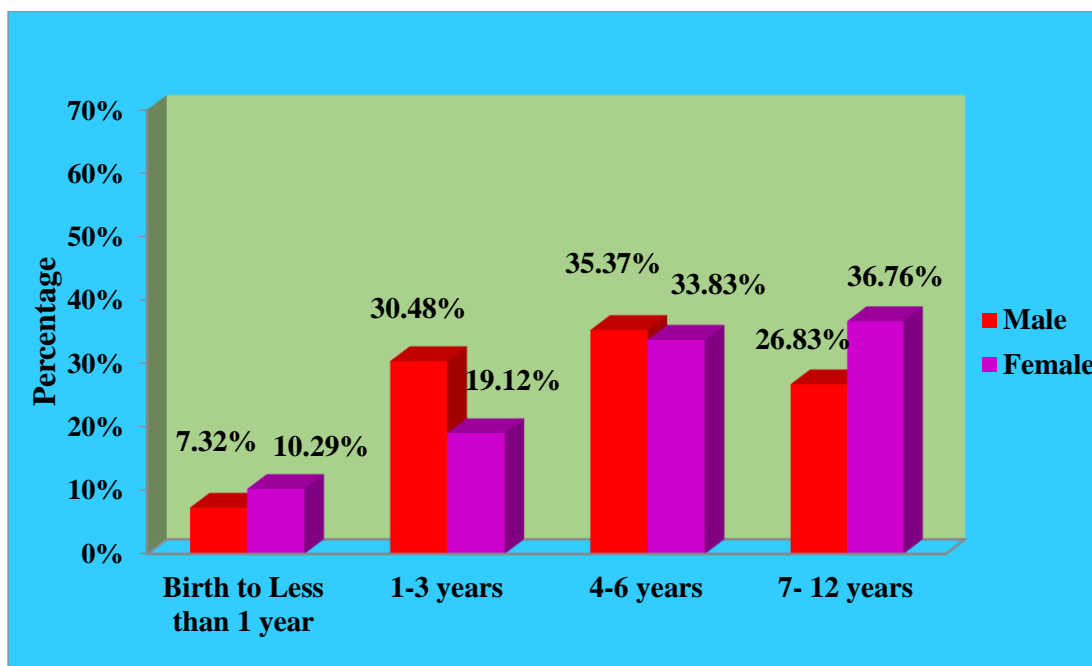
**While stating the pet animals in the home** among male Paediatric population, majority of the subjects 82 (100%) were not having pet animal at home. Whereas in female Paediatric population 68 (100%) were not having pet animal at home.

**When identifying the family history of dermatological disorders** in male Paediatric population, majority of the subjects 79 (96.34%) were not having history of dermatological disorders, 3 (3.66%) were having history of dermatological disorders. Whereas in female Paediatric population 64 (94.12%) were not having history of dermatological disorders, 4 (5.88%) were having history of dermatological disorders.

**Regarding the body built** among male Paediatric population, majority of the subjects 75 (91.46%) had thin body built, 5 (6.10%) had moderate body built, 2 (2.44%) had obese body. Whereas in female Paediatric population 60 (88.24%) had thin body built, 7 (10.29%) had moderate body built, 1 (1.47%) had obese body.

**While comparing the personal hygiene** among male Paediatric population, majority of the subjects 74 (90.24%) had fair personal hygiene, 5 (6.10%) had good personal hygiene, 3 (3.66%) had poor personal hygiene. Whereas in female Paediatric population 58 (85.30%) had fair personal hygiene, 6 (8.82%) had good personal hygiene, 4 (5.88%) had poor personal hygiene.

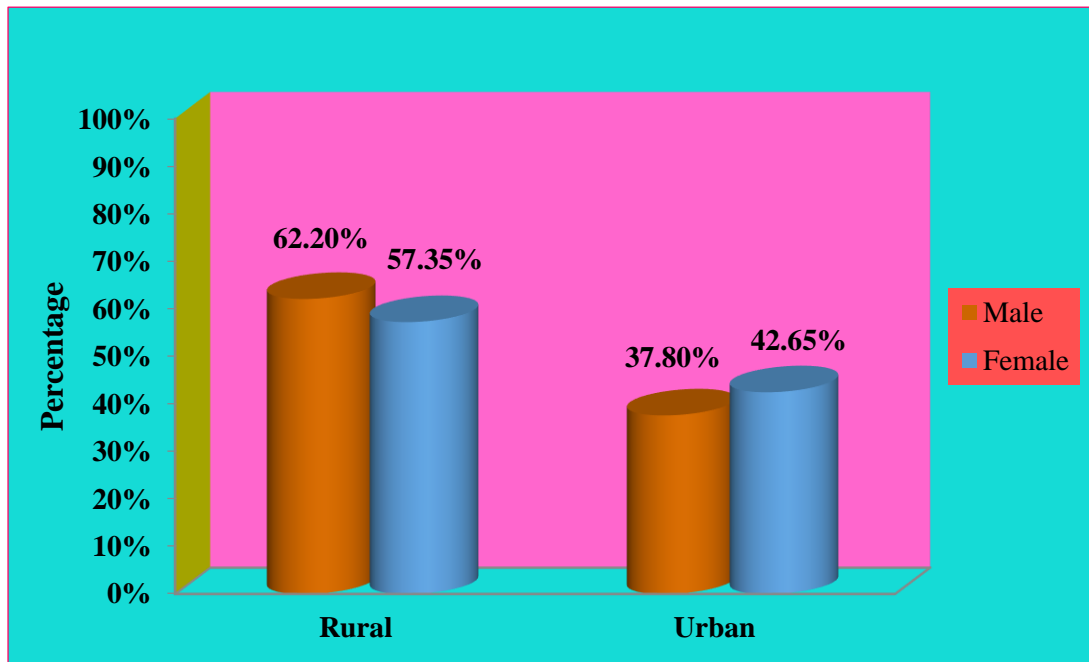
## Distribution of subjects according to age



**Figure 2: Multiple Bar diagram quotes percentage distribution of Paediatric population according to their age (in years)**

The above bar diagram quotes distribution of Paediatric population according to the age group in male Paediatric population, majority of the subjects 29 (35.37%) belongs to the age group between 4 - 6 years, 25 (30.48%) belongs to the age group between 1- 3 years, 22 (26.83 %) belongs to the age group between 7 – 12 years and 6 (7.32%) belongs to the age group between birth to less than 1 year. Whereas in female Paediatric population, majority of the subjects 25 (36.76 %) belongs to the age group between 7-12 years, 23 (33.83%) belongs to the age group between 4- 6 years, 13 (19.12%) belongs to the age group between 1-3 years and 7(10.29%) belongs to the age group between birth to less than 1 year.

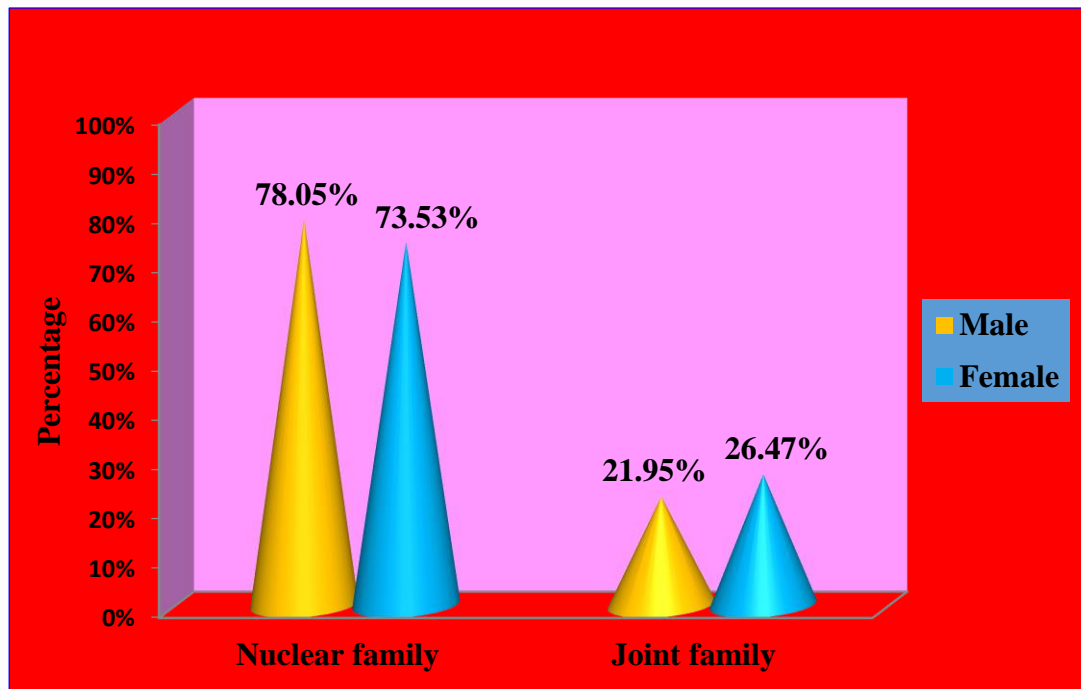
### Distribution of subjects according to place of residence



**Figure 3: Multiple cylinder diagram depicts the percentage distribution of Paediatric population according to their place of residence.**

The above cylinder diagram depicts as far as place of residence in male Paediatric population, majority of the subjects 51 (62.20%) were from rural area, 31 (37.80%) were from urban area. Whereas in the female Paediatric population, majority of the subjects 39 (57.35%) were from rural area, 29 (42.65%) were from urban areas.

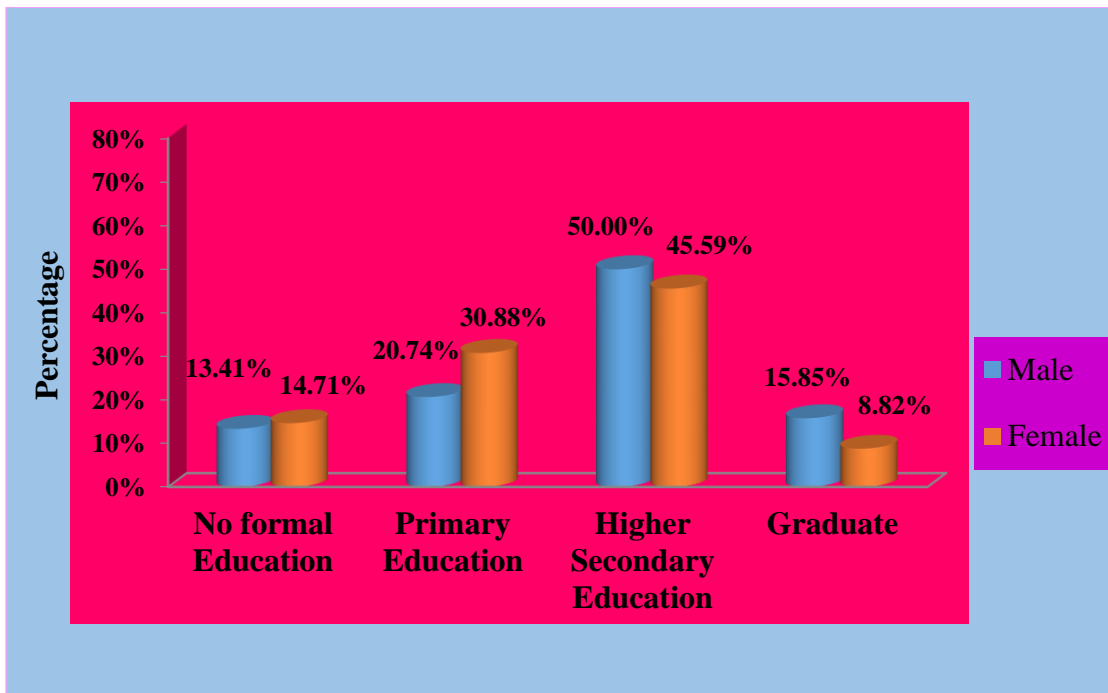
### Distribution of subjects according to type of family



**Figure 4: Cone diagram depicts the percentage distribution of Paediatric population according to their type of family**

The above cone diagram depicts with respect of the type of family, majority of the Paediatric population 64 (78.05%) were from nuclear family, 18 (21.95%) were from joint family. Whereas in the female, majority of the subjects 50 (73.53%) were from nuclear family, 18 (26.47%) were from joint family.

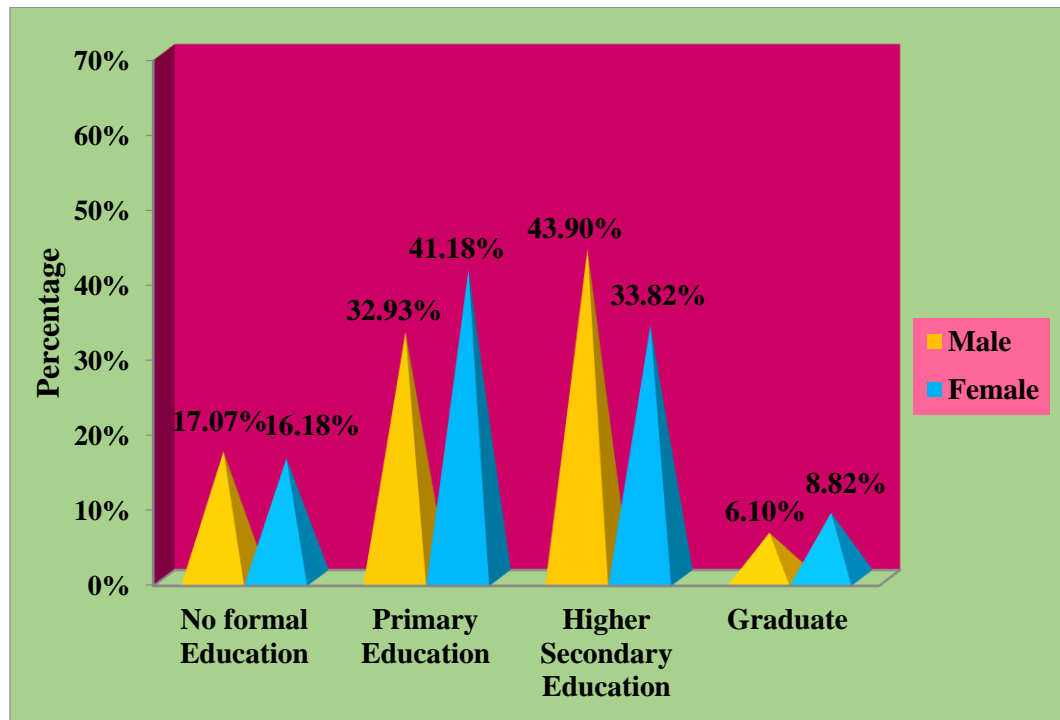
## Distribution of subjects according to mother's educational status



**Figure 5: Multiple bar diagram discussing the percentage distribution of Paediatric population according to their mother's educational status**

The above bar diagram discussing educational status of the mother among male Paediatric population, majority of the subjects 41(50 %) studied higher secondary education, 17 (20.74 %) studied primary education, 13 (15.85%) studied graduate education, and 11 (13.41%) had no formal education. On the other hand in the female Paediatric population majority of the subjects 31 (45.49%) studied higher secondary education, 21(30.88%) studied primary education, 10 (14.71%) had no formal education, and 6 (8.82%) studied graduate education.

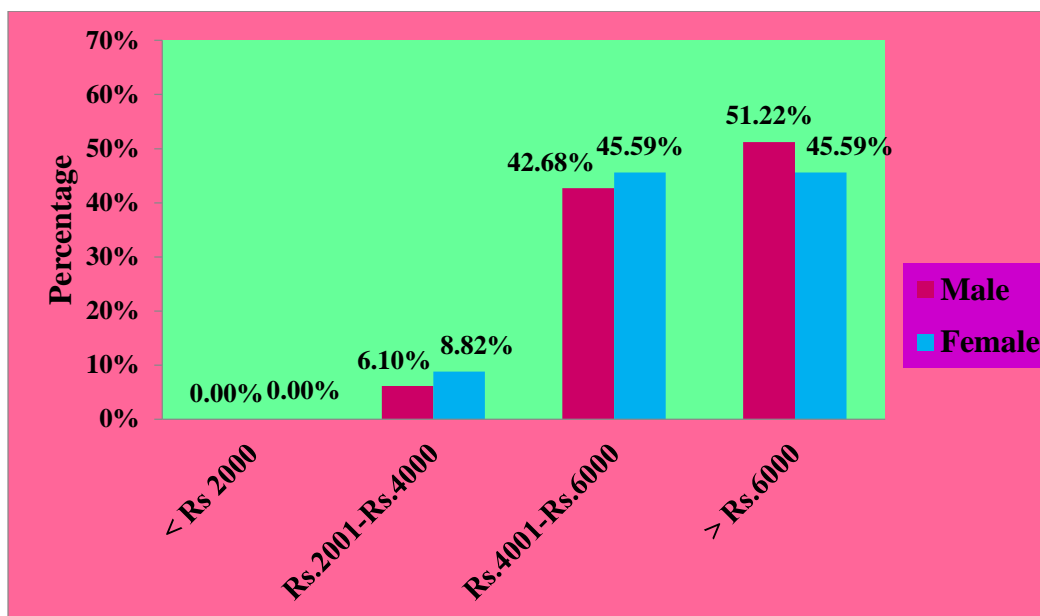
## Distribution of subjects according to father's educational status



**Figure 6: Pyramid diagram discussing the percentage distribution of Paediatric population according to their father's educational status.**

The above pyramid diagram discussing educational status of the father among male Paediatric population, majority of the subjects 36 (43.90%) studied upto higher secondary education, 27 (32.93%) studied upto primary education, 14 (17.07%) had no formal education, and 5 (6.10%) studied upto graduate education. On the other hand in the female Paediatric population, majority of the subjects 28 (41.18%) studied upto primary education, 23 (33.82%) studied upto higher secondary education, 11 (16.18%) had no formal education, and 6 (8.82%) studied upto graduate education.

### Distribution of subjects to income of the family per month

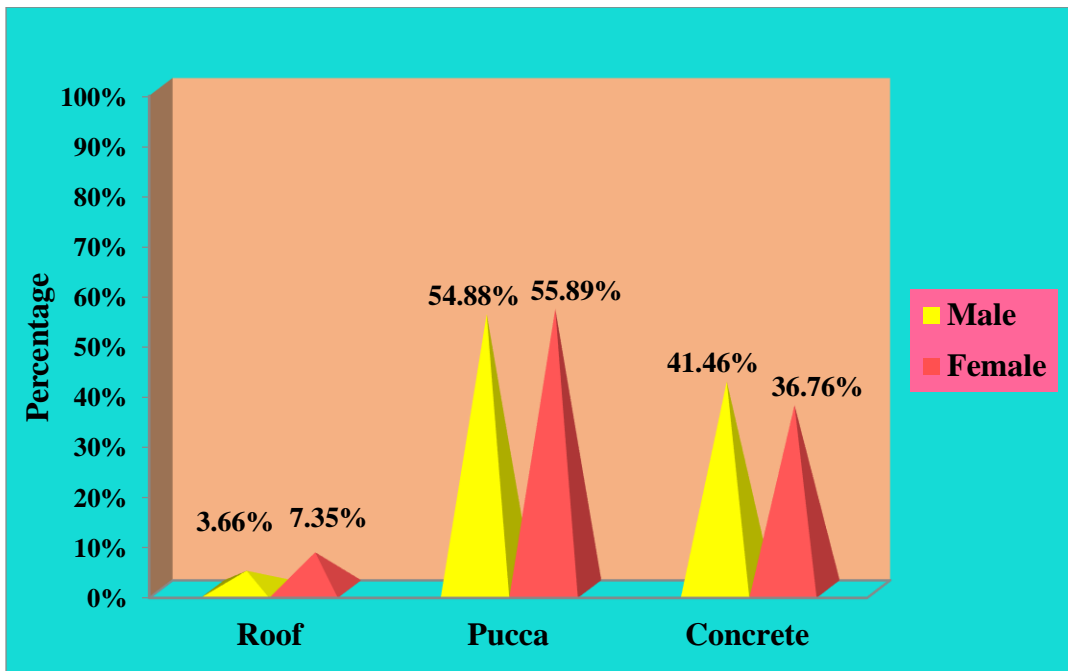


**Figure 7: Multiple bar diagram comparing the percentage distribution of Paediatric population according to their family income per month.**

The above bar diagram comparing the family income per month among male Paediatric population, majority of the subjects 42 (51.22%) were earned more than Rs.6000, 35 (42.68%) were earned between Rs.4001-6000, 5 (6.10%) were earned between Rs.2001-4000 .Whereas in the family income per month among female Paediatric population, majority of the subjects 31 (45.59%) were earned between Rs.4001-6000 and more than 6000 and remaining 6 (8.82%) earned between Rs. 2001-4000.



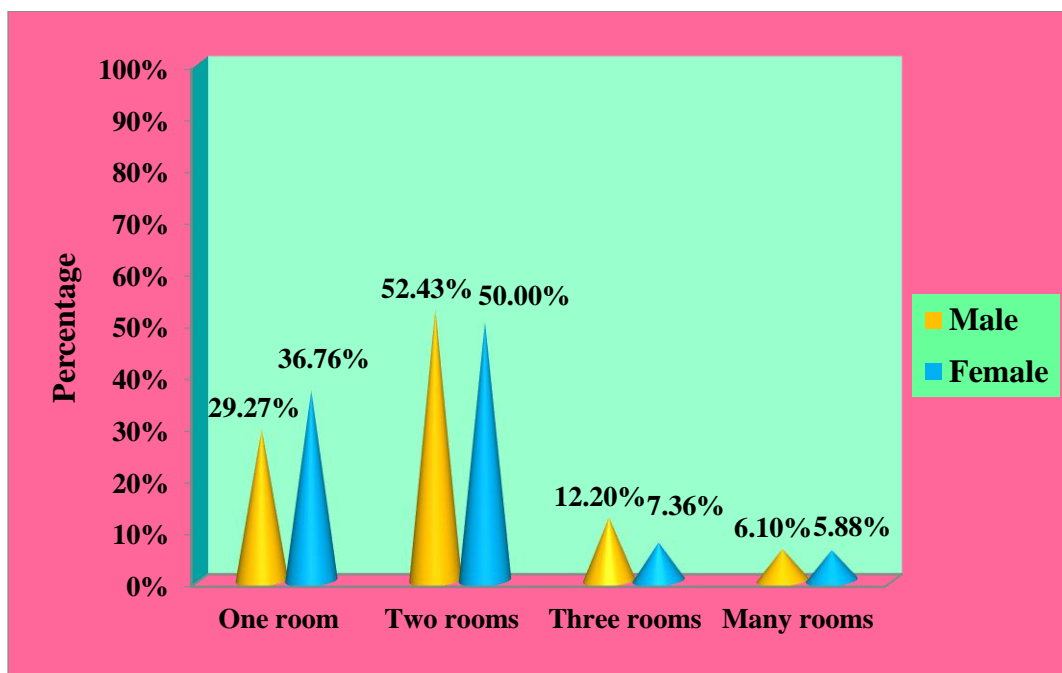
### Distribution of subjects according to type of house



**Figure 8: Pyramid diagram stating the percentage distribution of Paediatric population according to their type of house.**

The above pyramid diagram stating type of house among male Paediatric population, majority of the subjects 45 (54.88%) had pucca house, 34 (41.46%) had concrete house, 3 (3.66%) had roof house. Whereas in the female Paediatric population, majority of the subjects 38 (55.89%) had pucca house, 25 (36.76%) had concrete house, 5 (7.35%) had roof house.

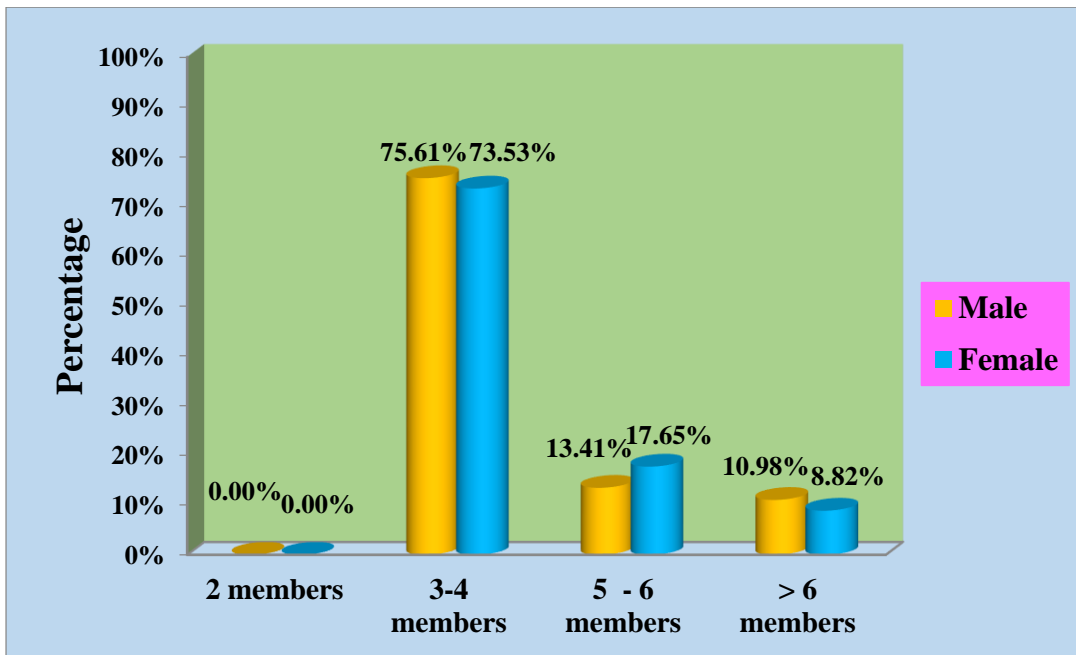
## Distribution of subjects according to rooms available in house



**Figure 9: Cone diagram considering the percentage distribution of Paediatric population according to their rooms available in house.**

The above cone diagram considering the rooms available in the house among male Paediatric population, majority of the subjects 43 (52.43%) had two rooms in the house, 24 (29.27%) had one room in the house, 10 (12.20%) had three rooms in the house, 5 (6.10%) had more than three rooms in the house. Whereas in female Paediatric population 34 (50 %) had two rooms in the house, 25 (36.76 %) had one room in the house, 5 (7.36%) had three rooms in the house, 4 (5.88%) had more than three rooms in the house.

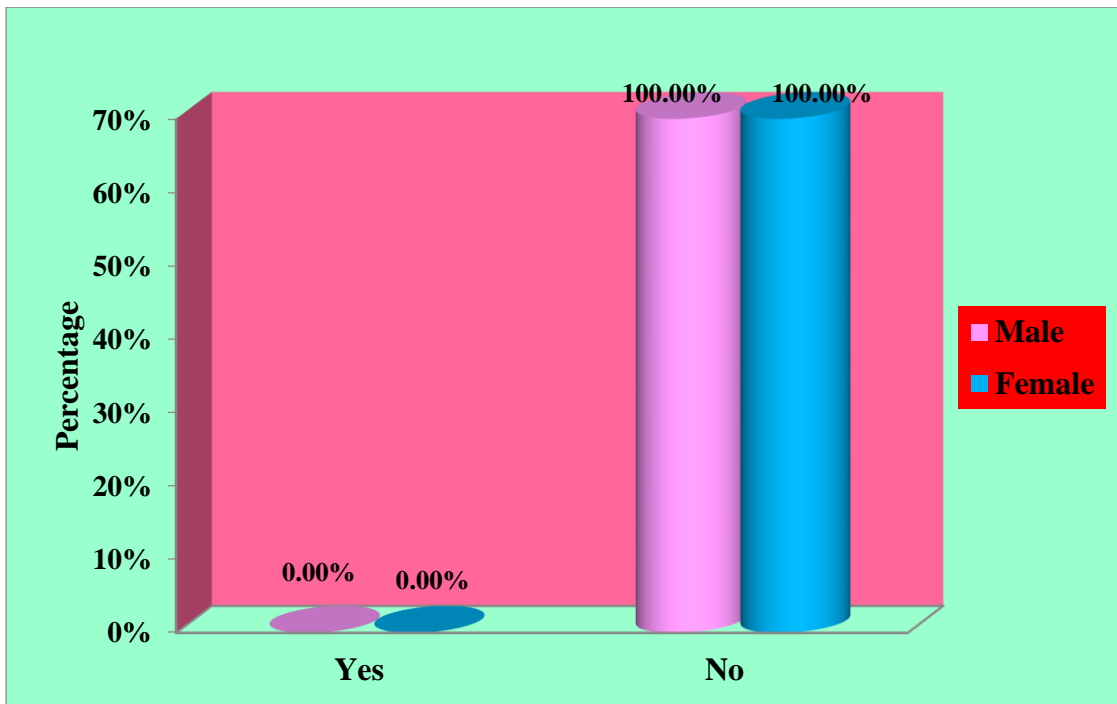
## Distribution of subjects according to number of household members



**Figure 10: Multiple bar diagram denoting the percentage distribution of Paediatric population according to their number of household members.**

The above bar diagram denoting the number of household members in male Paediatric population, majority of the subjects 62 (75.61%) had between 3- 4 members, 11 (13.41%) had between 5-6 members, 9 (10.98%) had more than 6 members. Whereas in female Paediatric population 50 (73.53%) had between 3- 4 members, 12 (17.65%) had between 5-6 members, 6 (8.82%) had more than 6 members, none of them had 2 members in this family.

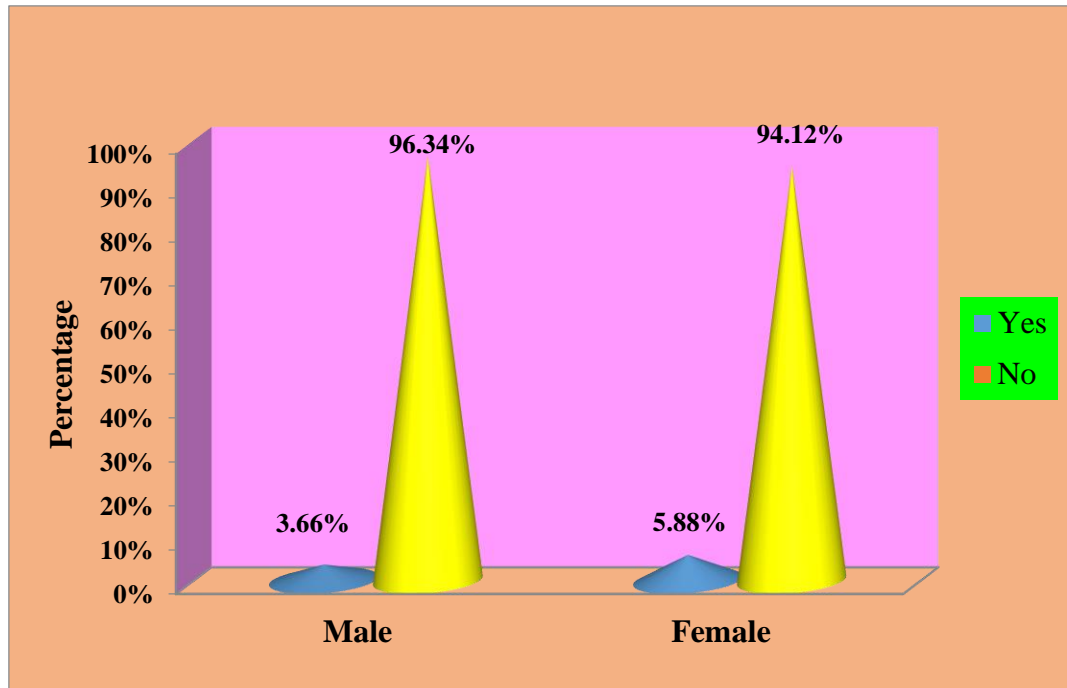
### Distribution of subjects according to pet animals at home



**Figure 11: Cylinder diagram stating the percentage distribution of Paediatric population according to the pet animals in home.**

The above cylinder diagram stating the pet animals in the home among male Paediatric population, majority of the subjects 82 (100%) were not having pet animal at home. Whereas in female Paediatric population 68 (100%) were not having pet animal at home.

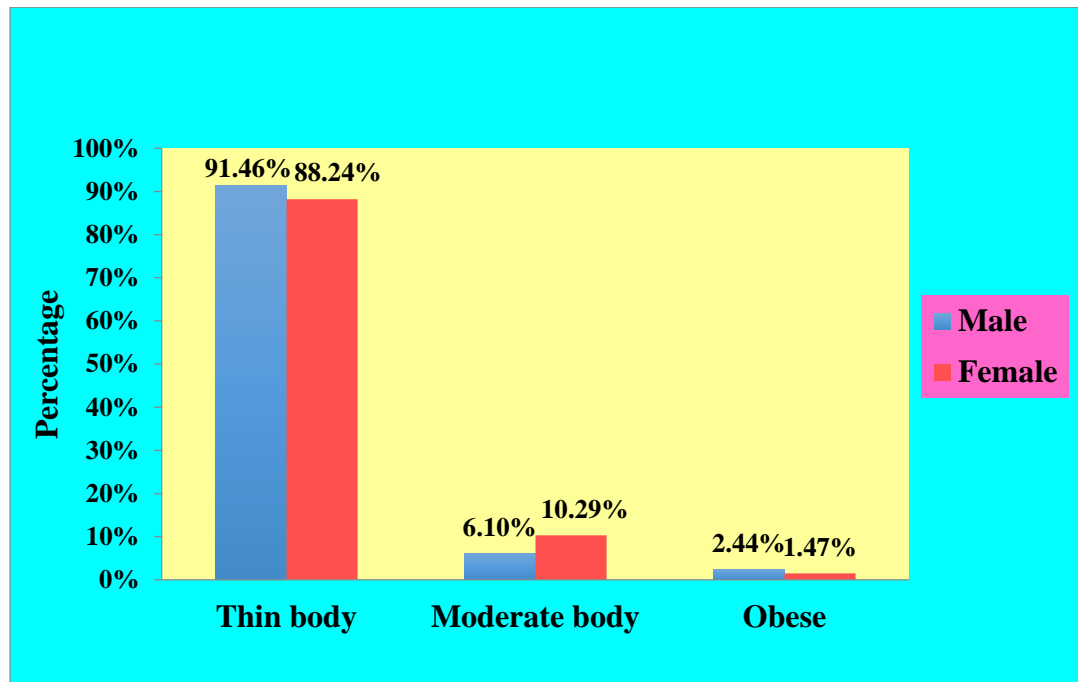
## Distribution of subjects according to family history of dermatological disorders



**Figure 12: Cone diagram identifying the percentage distribution of Paediatric population according to their family history of dermatological disorders.**

The above cone diagram identifying the family history of dermatological disorders in male Paediatric population, majority of the subjects 79 (96.34%) were not having history of dermatological disorders, 3 (3.66%) were having history of dermatological disorders. Whereas in female Paediatric population 64 (94.12%) were not having history of dermatological disorders, 4 (5.88%) were having history of dermatological disorders.

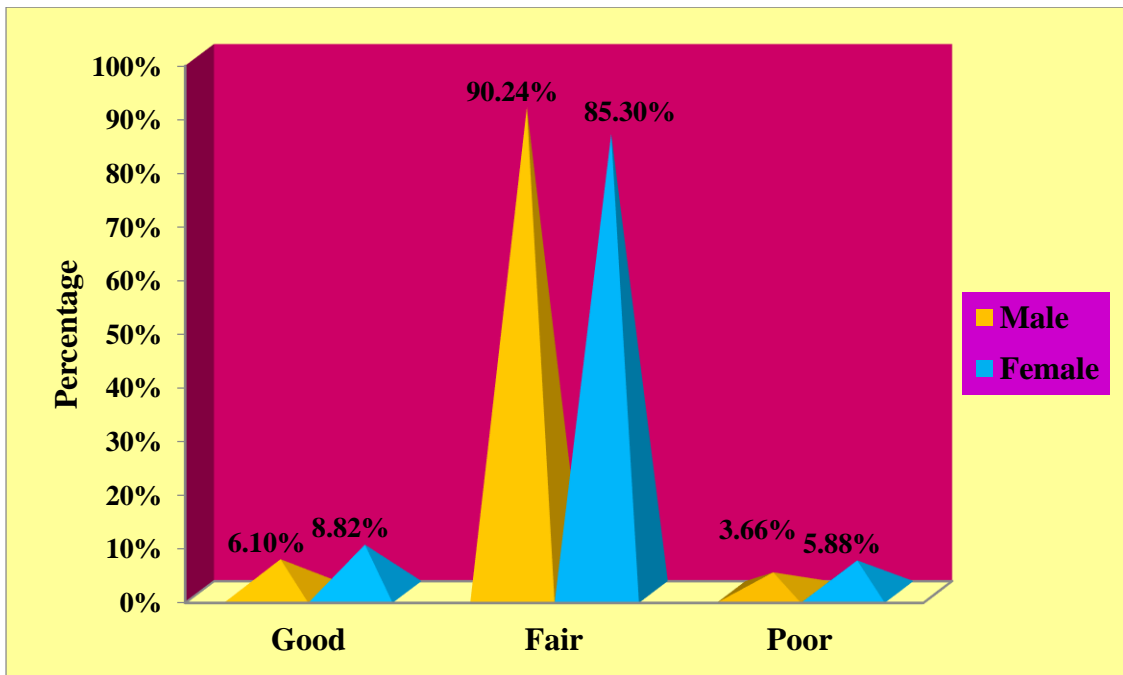
### Distribution of subjects according to body built



**Figure 13: Multiple bar diagram depicts the percentage distribution of Paediatric population according to their body built.**

The bar diagram depicts the body built among male Paediatric population, majority of the subjects 75 (91.46%) had thin body built, 5 (6.10%) had moderate body built, 2 (2.44%) had obese body. Whereas in female Paediatric population 60 (88.24%) had thin body built, 7 (10.29%) had moderate body built, 1 (1.47%) had obese body.

### Distribution of subjects according to personal hygiene



**Figure 14: Cone diagram comparing the percentage distribution of Paediatric population according to their personal hygiene.**

The above cone diagram comparing the personal hygiene, male Paediatric population, majority of the subjects 74 (90.24%) had fair personal hygiene, 5 (6.10%) had good personal hygiene, 3 (3.66%) had poor personal hygiene. Whereas in female Paediatric population 58 (85.30%) had fair personal hygiene, 6 (8.82%) had good personal hygiene, 4 (5.88%) had poor personal hygiene.

## SECTION –II

**Describe the comparison of dermatological disorders among male and female Paediatric population.**

**Table – 2**

**Frequency and percentage distribution of dermatological disorders among male and female Paediatric population.**

S.No	Dermatological Disorders	n = 150			
		Male (n=82)		Female (n=68)	
		f	%	f	%
1.	Impetigo	14	17.07 %	8	11.76 %
2.	Scabies	12	14.63 %	7	10.29 %
3.	Pyoderma	9	10.98 %	7	10.29 %
4.	Warts	0	0.00%	2	2.94 %
5.	Molluscum contagiosum	3	3.66 %	0	0.00 %
6.	Chickenpox	0	0.00 %	0	0.00 %
7.	Miliaria Rubra	6	7.32 %	6	8.82 %
8.	Atopic dermatitis	1	1.22 %	4	5.88 %
9.	Juvenile Papular dermatitis	0	0.00 %	1	1.47 %
10.	Seborrhoeic dermatitis	0	0.00 %	0	0.00 %
11.	Contact dermatitis	3	3.66 %	1	1.47 %
12.	Urticaria	2	2.44 %	10	14.71 %
13.	Insect bite allergy	6	7.32 %	2	2.94 %
14.	Psoriasis	0	0.00 %	1	1.47 %
15.	Vitiligo	1	1.22 %	0	0.00 %
16.	Eczema	1	1.22 %	1	1.47 %
17.	Hand Foot Mouth Disease	3	3.66 %	0	0.00 %
18.	Perioritis	3	3.66 %	1	1.47 %
19.	Pityriasis alba	2	2.44 %	3	4.41 %
20.	Furunculosis	2	2.44 %	1	1.47 %
21.	Pityriais rosea	1	1.22 %	1	1.47 %



22.	Lichen planus	1	1.22 %	0	0.00 %
23.	Lichen striatis	0	0.00 %	2	2.94 %
24.	Xerosis	0	0.00 %	1	1.47 %
25.	Herpes zoster	0	0.00 %	1	1.47 %
26.	Tinea capitates	0	0.00 %	1	1.47 %
27.	Tinea Versicolor	4	4.88 %	0	0.00 %
28.	Tinea corporis	4	4.88 %	2	2.94 %
29.	Candidaiasis	0	0.00 %	0	0.00 %
30.	Pityriasis versicolor	0	0.00 %	0	0.00 %
31.	Secondary Pyoderma	2	2.44 %	1	1.47 %
32.	Pediculosis	1	1.22 %	3	4.41 %
33.	Folliculitis	1	1.22 %	1	1.47 %

The above table 2 reveals that, majority of the male Paediatric population 14 (17.07 %) were had impetigo and 12 (14.63 %) were had scabies. Whereas in the female Paediatric population 8 (11.76 %) were had impetigo and 7 (10.29 %) were had scabies.

While denoting the pyoderma majority of the male Paediatric population 9 (10.98 %), whereas in the female Paediatric population 7 (10.29%) were had Pyoderma.

While discussing the warts none of them had warts in male Paediatric population. Whereas in the female 2 (2.94%) were had warts.

While stating the dermatological disorders among male Paediatric population 3 (3.66%) were had molluscum contagiosum and 6 (7.32%) were miliaria rubra. Whereas in the female Paediatric population 6 (8.82%) were miliaria rubra and none of them had molluscum contagiosum.

While considering the dermatological disorders among male Paediatric population 1 (1.22%) was atopic dermatitis, none of them had Juvenile Papular dermatitis. Whereas in the female Paediatric population 4 (5.88%) were atopic dermatitis and 1 (1.47%) was Juvenile Papular dermatitis.

While discussing the dermatological disorders among male Paediatric population 3 (3.66%) were contact dermatitis and 2 (2.44%) were urticaria. Whereas in the female Paediatric population 1 (1.47%) was contact dermatitis and 10 (14.71%) were urticaria.

While mentioning the dermatological disorders among male Paediatric population 6 (7.32%) were Insect bite allergy and none of them had psoriasis. Whereas in the female Paediatric population 2 (2.94%) were Insect bite allergy and 1 (1.47%) was psoriasis.

While stating the dermatological disorders among male Paediatric population 1 (1.22 %) had vitiligo and eczema and 3 (3.66 %) had hand foot mouth disease and perioritis, whereas in the female Paediatric population 1 (1.47%) had eczema and perioritis and none of them vitiligo and hand foot mouth disease.

None of them had xerosis, herpes zoster and tinea capitates among male Paediatric population. Whereas in the female Paediatric population 1 (1.47%) was had xerosis, herpes zoster and tinea capitates.

While considering tinea versicolor and tinea corporis among male Paediatric population majority 4 (4.88 %) were suffered. Whereas in the female Paediatric population 2 (2.94%) had tinea corporis and none of them had tinea versicolor.

Both in male and female Paediatric population none of them had candidiasis and pityriasis versicolor.

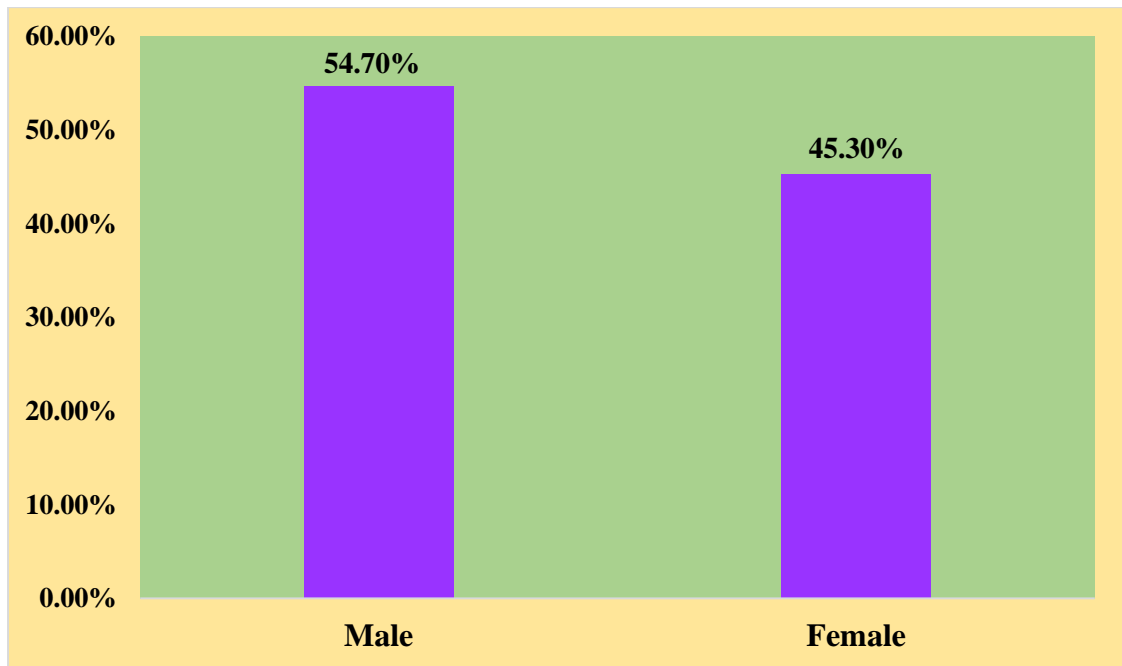
While discussing the dermatological disorders among male Paediatric population 2 (2.44%) were had secondary pyoderma, 1 (1.22%) was had pediculosis and folliculitis. Whereas in the female Paediatric population 3 (4.41%) were had pediculosis, 1 (1.47%) had secondary pyoderma and folliculitis.

**Table: 3 Frequency and percentage distribution of subjects according to their incidence of dermatological disorders.**

<b>n=150</b>			
<b>Group</b>	<b>f</b>	<b>%</b>	<b><math>\chi^2</math></b>
Male	82	54.7 %	<b><math>\chi^2=3.92</math></b> <b>P= 0.05</b> <b>DF=1 S</b>
Female	68	45.3 %	
Total	150	100 %	

The above table 3 reveals that in male 82 (54.7%), whereas in the female 68 (45.3%) had dermatological disorders. The chi-square value is 3.92 at 0.05 level.

### Distribution of subjects according to incidence of dermatological disorders



**Figure 15: Bar diagram stating the incidence of dermatological disorders among male and female Paediatric population**

The above bar diagram denoting that in male 82 (54.7%), whereas in the female 68 (45.3%) had dermatological disorders.

### SECTION – III

**Describe the association between the dermatological disorders among male and female Paediatric population in Skin Outpatient department at Government Rajaji Hospital, Madurai with their selected socio demographic variables.**

**Table – 4**

**Association between the incidence of impetigo among male Paediatric population with their selected socio demographic variables.**

Socio demographic variables		Impetigo				Total	$\chi^2$
		Yes (n=14)		No (n=68)			
		f	%	f	%		
<b>Age</b>	Birth to Less than 1 years	0	0.0%	6	100.0%	6	$\chi^2=8.26$ <b>P=0.04*</b> <b>DF=3 S</b>
	1-3 years	1	4.0%	24	96.0%	25	
	4-6 years	9	31.0%	20	69.0%	29	
	7- 12 years	4	18.2%	18	87.8%	22	
<b>Place of residence</b>	Rural	8	15.7%	43	84.3%	51	$\chi^2=0.18$ P=0.66 DF=1 NS
	Urban	6	19.4%	25	80.6%	31	
<b>Type of Family</b>	Nuclear family	12	18.8%	52	81.3%	64	$\chi^2=0.58$ P=0.44 DF=1 NS
	Joint family	2	11.1%	16	88.9%	18	
<b>Mother Educational Status</b>	No formal Education	1	9.1%	10	90.9%	11	$\chi^2=1.33$ P=0.72 DF=3 NS
	Primary Education	2	11.8%	15	88.2%	17	
	Higher Secondary Education	8	19.5%	33	80.5%	41	
	Graduate	3	23.1%	10	76.9%	13	

<b>Father Educational Status</b>	No formal Education	3	21.4%	11	78.6%	14	$\chi^2=1.03$ P=0.79 DF=3 NS
	Primary Education	3	11.1%	24	88.9%	27	
	Higher Secondary Education	7	19.4%	29	80.6%	36	
	Graduate	1	20.0%	4	80.0%	5	
<b>Income of the family per month</b>	Less Rs. 2000	0	0.0%	0	0.0%	0	$\chi^2=2.08$ P=0.35 DF=3 NS
	Rs.2001- Rs.4000	2	40.0%	3	60.0%	5	
	Rs.4001- Rs.6000	6	17.1%	29	82.9%	35	
	Rs.6001 and above	6	14.3%	36	85.7%	42	
<b>Type of house</b>	Roof	1	33.3%	2	66.7%	3	$\chi^2=0.64$ P=0.72 DF=2 NS
	Pucca	7	15.6%	38	84.4%	45	
	Concrete	6	17.6%	28	82.4%	34	
<b>Rooms available in house</b>	One room	3	12.5%	21	87.5%	24	$\chi^2=1.89$ P=0.59 DF=3 NS
	Two rooms	9	20.9%	34	79.1%	43	
	Three rooms	2	20.0%	8	80.0%	10	
	More than three	0	0.0%	5	100.0%	5	
<b>Number of household members</b>	2 members	0	0.0%	0	0.0%	0	$\chi^2=0.68$ P=0.71 DF=3 NS
	3 – 4 members	11	17.7%	51	82.3%	62	
	5 - 6 members	1	9.1%	10	90.9%	11	
	> 6 members	2	22.2%	7	77.8%	9	
<b>Pet animals in home</b>	Yes	0	0.0%	0	0.0%	0	$\chi^2=0.00$ P=1.00 DF=1 NS
	No	14	17.1%	68	82.9%	82	

<b>Family history of dermatological disorders</b>	Yes	1	33.3%	2	66.7%	3	$\chi^2=0.58$ P=0.44 DF=1 NS
	No	13	16.5%	66	83.5%	79	
<b>Body built</b>	Thin body	11	14.7%	64	85.3%	75	$\chi^2=7.22$ <b>P=0.02*</b> <b>DF=2 S</b>
	Moderate body	3	60.0%	2	40.0%	5	
	Obese	0	0.0%	2	100.0%	2	
<b>Personal hygiene</b>	Good	0	0.0%	5	100.0%	5	$\chi^2=6.27$ <b>P=0.04*</b> <b>DF=2 S</b>
	Fair	12	16.2%	62	83.8%	74	
	Poor	2	66.7%	1	100.0%	3	

The above table 4 denotes, association between the incidence of impetigo among male Paediatric population with their selected socio demographic variables. Chi-square test reveals that, there was a significant association between the impetigo and age ( $\chi^2=8.26$ ), (P=0.04), body built ( $\chi^2=7.22$ ), (P=0.02) and personal hygiene ( $\chi^2=6.27$ ), (P=0.04) at 0.05 % level (i-e) **4- 6 years of child, Thin body built, Poor personal hygiene**. Other variables of male Paediatric population was not statistically associated with their selected socio demographic variables.

**Table: 5 Association between the incidence of impetigo among female Paediatric population with their selected socio demographic variables.**

Socio demographic variables		Impetigo				Total	$\chi^2$
		Yes (n=8)		No (n=60)			
		f	%	f	%		
Age	Birth to less than 1 years	1	14.3%	6	85.7%	7	$\chi^2=2.36$ P=0.50 DF=3 NS
	1-3 years	2	15.4%	11	84.6%	13	
	4-6 years	4	17.4%	19	82.6%	23	
	7- 12 years	1	4.0%	24	96.0%	25	
Place of residence	Rural	6	15.4%	33	84.6%	39	$\chi^2=1.15$ P=0.28 DF=1NS
	Urban	2	6.9%	27	93.1%	29	
Type of Family	Nuclear family	7	14.0%	43	86.0%	50	$\chi^2=0.90$ P=0.34 DF=1 NS
	Joint family	1	5.6%	17	94.4%	18	
Mother Educational Status	No formal Education	1	10.0%	9	90.0%	10	$\chi^2=1.50$ P=0.68 DF=3 NS
	Primary Education	2	9.5%	19	90.5%	21	
	Higher Secondary Education	5	16.1%	26	83.9%	31	
	Graduate	0	0.0%	6	100.0%	6	
Father Educational Status	No formal Education	1	9.1%	10	90.9%	11	$\chi^2=0.59$ P=0.89 DF = 3 NS
	Primary Education	4	14.3%	24	85.7%	28	
	Higher Secondary Education	2	8.7%	21	91.3%	23	
	Graduate	1	16.7%	5	83.3%	6	



<b>Income of the family per month</b>	Less than Rs. 2000	0	0.0%	0	0.0%	0	$\chi^2=1.55$ P=0.46 DF=3 NS
	Rs.2001-Rs.4000	1	16.7%	5	83.3%	6	
	Rs.4001-Rs.6000	5	16.1%	26	83.9%	31	
	Rs.6001 & above	2	6.5%	29	93.5%	31	
<b>Type of house</b>	Roof	3	60.0%	2	40.0%	5	$\chi^2=7.15$ <b>P=0.03*</b> <b>DF=2 S</b>
	Pucca	4	10.5%	34	89.5%	38	
	Concrete	1	4.0%	24	96.0%	25	
<b>Rooms available in house</b>	One room	2	8.0%	23	92.0%	25	$\chi^2=4.71$ P=0.19 DF=3 NS
	Two rooms	4	11.8%	30	88.2%	34	
	Three rooms	2	40.0%	3	60.0%	5	
	More than three	0	0.0%	4	100.0%	4	
<b>Number of household members</b>	2 members	0	0.0%	0	0.0%	0	$\chi^2=1.17$ P=0.55 DF=3 NS
	2 – 4 members	7	14.0%	43	86.0%	50	
	5 - 6 members	1	8.3%	11	91.7%	12	
	> 6 members	0	0.0%	6	100.0%	6	
<b>Pet animals in home</b>	Yes	0	0.0%	0	0.0%	0	$\chi^2=0.00$ P=1.00 DF=1NS
	No	8	11.8%	60	88.2%	68	
<b>Family history of dermatologic al disorders</b>	Yes	0	0.0%	4	100.0%	4	$\chi^2=0.56$ P=0.45 DF=1 NS
	No	8	12.5%	56	87.5%	64	
<b>Body built</b>	Thin body	7	11.7%	53	88.3%	60	$\chi^2=8.43$ <b>P=0.02*</b> <b>DF=2 S</b>
	Moderate body	0	0.0%	7	100.0%	7	
	Obese	1	100.0%	0	0.0%	1	
<b>Personal hygiene</b>	Good	0	0.0%	6	100.0%	6	$\chi^2=9.34$ <b>P=0.01**</b> <b>DF=2 S</b>
	Fair	6	10.3%	51	87.9%	58	
	Poor	2	66.3%	1	33.3%	4	

The above table 5 denotes, association between the incidence of impetigo among female Paediatric population with their selected socio demographic variables. Chi-square test reveals that, there was a significant association between the impetigo and type of house ( $\chi^2=7.15$ ), (P=0.03), body built ( $\chi^2=8.43$ ), (P=0.02) and personal hygiene ( $\chi^2=9.34$ ), (P=0.01) at 0.05 % level (i-e) **House with roof type, Thin/obese body built, Poor personal hygiene**. Other variables of female Paediatric population was not statistically associated with their selected socio demographic variables.

**Table: 6 Association between the incidence of scabies among male Paediatric population with their selected socio demographic variables.**

Socio demographic variables		Scabies				Total	$\chi^2$
		Yes (n=12)		No (n=70)			
		f	%	f	%		
<b>Age</b>	Birth to less than 1 years	1	16.7%	5	83.3%	6	$\chi^2=5.52$ P=0.12 DF=3 NS
	1-3 years	7	28.0%	18	72.0%	25	
	4-6 years	2	6.9%	27	93.1%	29	
	7- 12 years	2	9.1%	20	90.9%	22	
<b>Place of residence</b>	Rural	9	17.6%	42	82.4%	51	$\chi^2=0.98$ P=0.32 DF=1 NS
	Urban	3	9.7%	28	90.3%	31	
<b>Type of Family</b>	Nuclear family	9	14.1%	55	85.9%	64	$\chi^2=0.08$ P=0.78 DF=1 NS
	Joint family	3	16.7%	15	83.3%	18	
<b>Mother Educational Status</b>	No formal Education	4	36.4%	7	63.6%	11	$\chi^2=12.01$ P=0.01** DF=3 S
	Primary Education	5	29.4%	12	70.6%	17	
	Higher Secondary Education	1	2.4%	40	97.6%	41	
	Graduate	2	15.4%	11	84.6%	13	
<b>Father Educational Status</b>	No formal Education	2	14.3%	12	85.7%	14	$\chi^2=8.09$ P=0.05* DF=3 S
	Primary Education	8	29.6%	19	70.4%	27	
	Higher Secondary Education	2	5.6%	34	94.4%	36	
	Graduate	0	0.0%	5	100.0%	5	

<b>Income of the family per month</b>	Less than Rs. 2000	0	0.0%	0	0.0%	0	$\chi^2=1.91$ P=0.38 DF=3 NS
	Rs.2001-Rs.4000	0	0.0%	5	100.0%	5	
	Rs.4001-Rs.6000	7	20.0%	28	80.0%	35	
	Rs.6001 & above	5	11.9%	37	88.1%	42	
<b>Type of house</b>	Roof	0	0.0%	3	100.0%	3	$\chi^2=4.67$ P=0.10 DF=2 NS
	Pucca	10	22.2%	35	77.8%	45	
	Concrete	2	5.9%	32	94.1%	34	
<b>Rooms available in house</b>	One room	6	25.0%	18	75.0%	24	$\chi^2=6.63$ P=0.08 DF=3 NS
	Two rooms	3	7.0%	40	93.0%	43	
	Three rooms	1	10.0%	9	90.0%	10	
	More than three	2	40.0%	3	60.0%	5	
<b>Number of household members</b>	2 members	0	0.0%	0	0.0%	0	$\chi^2=3.18$ P=0.20 DF=3 NS
	3 – 4 members	7	11.3%	55	88.7%	62	
	5 - 6 members	2	18.2%	9	81.8%	11	
	> 6 members	3	33.3%	6	66.7%	9	
<b>Pet animals in home</b>	Yes	0	0.0%	0	0.0%	0	$\chi^2=0.00$ P=1.00 DF=1 NS
	No	12	14.6%	70	85.4%	82	
<b>Family history of dermatological disorders</b>	Yes	0	0.0%	3	100.0%	3	$\chi^2=0.53$ P=0.46 DF=1 NS
	No	12	15.2%	67	84.8%	79	
<b>Body built</b>	Thin body	11	14.7%	64	85.3%	75	$\chi^2=2.86$ P=0.24 DF=2 NS
	Moderate body	0	0.0%	5	100.0%	5	
	Obese	1	50.0%	1	50.0%	2	
<b>Personal hygiene</b>	Good	0	0.0%	5	100.0%	5	$\chi^2=7.43$ P=0.02* DF=2 S
	Fair	10	13.5%	64	86.5%	74	
	Poor	2	66.7%	1	33.3%	3	

The above table 6 denotes, association between the incidence of scabies among male Paediatric population with their selected socio demographic variables. Chi-square test reveals that, there was a significant association between the scabies and mother's educational status ( $\chi^2=12.01$ ), (P=0.01), father's educational status ( $\chi^2=8.09$ ), (P=0.05) and personal hygiene ( $\chi^2=7.43$ ), (P=0.02) at 0.05 % level (i-e) **No formal education of mother and father and Poor personal hygiene**. Other variables of male Paediatric population was not statistically associated with their selected socio demographic variables.

**Table: 7 Association between the incidence of scabies among female Paediatric population with their selected socio demographic variables.**

Socio demographic variables		Scabies				Total	$\chi^2$
		Yes (n=7)		No (n=61)			
		f	%	f	%		
<b>Age</b>	Birth to less than 1 years	1	14.3%	6	85.7%	7	$\chi^2=0.35$ P=0.95 DF=3 NS
	1-3 years	1	7.7%	12	92.3%	13	
	4-6 years	2	8.7%	21	91.3%	23	
	7- 12 years	3	12.0%	22	88.0%	25	
<b>Place of residence</b>	Rural	3	7.7%	36	92.3%	39	$\chi^2=0.67$ P=0.41 DF=1 NS
	Urban	4	13.8%	25	86.2%	29	
<b>Type of Family</b>	Nuclear family	4	8.0%	46	92.0%	50	$\chi^2=1.08$ P=0.30 DF=1 NS
	Joint family	3	16.7%	15	83.3%	18	
<b>Mother Educational Status</b>	No formal Education	1	10.0%	9	90.0%	10	$\chi^2=1.18$ P=0.75 DF=3 NS
	Primary Education	1	4.8%	20	95.2%	21	
	Higher Secondary Education	4	12.9%	27	87.1%	31	
	Graduate	1	16.7%	5	83.3%	6	
<b>Father Educational Status</b>	No formal Education	0	0.0%	11	100.0%	11	$\chi^2=1.72$ P=0.83 DF=3 NS
	Primary Education	3	10.7%	25	89.3%	28	
	Higher Secondary Education	3	13.0%	20	87.0%	23	
	Graduate	1	16.7%	5	83.3%	6	

<b>Income of the family per month</b>	Less than Rs. 2000	0	0.0%	0	0.0%	0	$\chi^2=0.28$ P=0.87 DF=3 NS
	Rs.2001-Rs.4000	1	16.7%	5	83.3%	6	
	Rs.4001-Rs.6000	3	9.7%	28	90.3%	31	
	Rs.6001 & above	3	9.7%	28	90.3%	31	
<b>Type of house</b>	Roof	0	0.0%	5	100.0%	5	$\chi^2=0.66$ P=0.72 DF=2 NS
	Pucca	4	10.5%	34	89.5%	38	
	Concrete	3	12.0%	22	88.0%	25	
<b>Rooms available in house</b>	One room	6	24.0%	19	76.0%	25	$\chi^2=8.10$ P=0.05* DF=3 S
	Two rooms	1	2.9%	33	92.1%	34	
	Three rooms	0	0.0%	5	100.0%	5	
	More than three	0	0.0%	4	100.0%	4	
<b>Number of household members</b>	2 members	0	0.0%	0	0.0%	0	$\chi^2=9.52$ P=0.02* DF=3 S
	3 – 4 members	2	4.0%	48	96.0%	50	
	5 - 6 members	3	25.0%	9	75.0%	12	
	> 6 members	2	33.3%	4	66.7%	6	
<b>Pet animals in home</b>	Yes	0	0.0%	0	0.0%	0	$\chi^2=0.00$ P=1.00 DF=1 NS
	No	7	10.3%	61	89.7%	68	
<b>Family history of dermatological disorders</b>	Yes	0	0.0%	4	100.0%	4	$\chi^2=0.48$ P=0.48 DF=1 NS
	No	7	10.9%	57	89.1%	64	
<b>Body built</b>	Thin body	6	10.0%	54	90.0%	60	$\chi^2=0.24$ P=0.88 DF=2 NS
	Moderate body	1	14.3%	6	85.7%	7	
	Obese	0	0.0%	1	100.0%	1	
<b>Personal hygiene</b>	Good	0	0.0%	6	100.0%	6	$\chi^2=9.34$ P=0.01** DF=3 S
	Fair	6	10.3%	52	89.7%	58	
	Poor	1	25.0%	3	75.0%	4	

The above table 7 explain, association between the incidence of scabies among female Paediatric population with their selected socio demographic variables. Chi - square test reveals that, there was a significant association between the scabies and rooms available in house ( $\chi^2=8.10$ ), ( $P=0.05$ ), Number of household members ( $\chi^2=9.52$ ), ( $P=0.02$ ) and personal hygiene ( $\chi^2=9.34$ ), ( $P=0.01$ ) at 0.05 % level (i-e) **only one room in house and more than six family members and Poor personal hygiene**. Other variables of female Paediatric population was not statistically associated with their selected socio demographic variables.



**Table: 8 Association between the incidence of pyoderma among male Paediatric population with their selected socio demographic variables.**

Socio demographic variables		Pyoderma				Total	$\chi^2$
		Yes (n=9)		No (n=73)			
		f	%	f	%		
<b>Age</b>	Birth to less than 1 years	0	0.0%	6	100.0%	6	$\chi^2=4.68$ P=0.19 DF=3 NS
	1-3 years	2	8.0%	23	92.0%	25	
	4-6 years	6	20.7%	23	79.3%	29	
	7- 12 years	1	4.5%	21	95.5%	22	
<b>Place of residence</b>	Rural	8	15.7%	43	84.3%	51	$\chi^2=9.55$ <b>P=0.01**</b> <b>DF=1 S</b>
	Urban	1	3.2%	30	96.8%	31	
<b>Type of Family</b>	Nuclear family	9	14.1%	55	85.9%	64	$\chi^2=2.84$ P=0.09 DF=1 NS
	Joint family	0	0.0%	18	100.0%	18	
<b>Mother Educational Status</b>	No formal Education	0	0.0%	11	100.0%	11	$\chi^2=2.33$ P=0.51 DF=3 NS
	Primary Education	3	17.6%	14	82.4%	17	
	Higher Secondary Education	5	12.2%	36	87.8%	41	
	Graduate	1	7.7%	12	92.3%	13	
<b>Father Educational Status</b>	No formal Education	0	0.0%	14	100.0%	14	$\chi^2=3.53$ P=0.32 DF=3 NS
	Primary Education	3	11.1%	24	88.9%	27	
	Higher Secondary Education	6	16.7%	30	83.3%	36	
	Graduate	0	0.0%	5	100.0%	5	

<b>Income of the family per month</b>	Less than Rs. 2000	0	0.0%	0	0.0%	0	$\chi^2=2.61$ P=0.27 DF=3 NS
	Rs.2001-Rs.4000	0	0.0%	5	100.0%	5	
	Rs.4001-Rs.6000	6	17.1%	29	82.9%	35	
	Rs.6001 & above	3	7.1%	39	92.9%	42	
<b>Type of house</b>	Roof	0	0.0%	3	100.0%	3	$\chi^2=2.23$ P=0.33 DF=2 NS
	Pucca	7	15.6%	38	84.4%	45	
	Concrete	2	5.9%	32	94.1%	34	
<b>Rooms available in house</b>	One room	2	8.3%	22	91.7%	24	$\chi^2=3.25$ P=0.35 DF=3 NS
	Two rooms	7	16.3%	36	83.7%	43	
	Three rooms	0	0.0%	10	100.0%	10	
	More than three	0	0.0%	5	100.0%	5	
<b>Number of household members</b>	2 members	0	0.0%	0	0.0%	0	$\chi^2=3.26$ P=0.19 DF=3 NS
	3 – 4 members	9	14.5%	53	85.5%	62	
	5 - 6 members	0	0.0%	11	100.0%	11	
	> 6 members	0	0.0%	9	100.0%	9	
<b>Pet animals in home</b>	Yes	0	0.0%	0	0.0%	0	$\chi^2=0.00$ P=1.00 DF=1 NS
	No	9	11.0%	73	89.0%	82	
<b>Family history of dermatological disorders</b>	Yes	0	0.0%	3	100.0%	3	$\chi^2=0.38$ P=0.53 DF=1 NS
	No	9	11.4%	70	88.6%	79	
<b>Body built</b>	Thin body	8	10.7%	67	89.3%	75	$\chi^2=0.67$ P=0.71 DF=2 NS
	Moderate body	1	20.0%	4	80.0%	5	
	Obese	0	0.0%	2	100.0%	2	
<b>Personal hygiene</b>	Good	0	0.0%	5	100.0%	5	$\chi^2=10.31$ <b>P=0.01**</b> <b>DF=2 S</b>
	Fair	7	9.5%	67	90.5%	74	
	Poor	2	66.7%	1	33.3%	3	

The above table 8 explain, association between the incidence of pyoderma among male Paediatric population with their selected socio demographic variables. Chi-square test reveals that, there was a significant association between the pyoderma and Place of residence ( $\chi^2=9.55$ ), ( $P=0.01$ ) and personal hygiene ( $\chi^2=10.31$ ), ( $P=0.01$ ) at 0.05 % level (i-e) **Children from rural and who had poor personal hygiene**. Other variables of male Paediatric population was not statistically associated with their selected socio demographic variables.

**Table: 9 Association between the incidence of pyoderma among female Paediatric population with their selected socio demographic variables**

**n=68**

Socio demographic variables		Pyoderma				Total	$\chi^2$
		Yes (n=7)		No (n=61)			
		f	%	f	%		
<b>Age</b>	Birth to less than 1 years	0	0.0%	7	100.0%	7	$\chi^2=1.16$ P=0.76 DF=3 NS
	1-3 years	1	7.7%	12	92.3%	13	
	4-6 years	3	13.0%	20	87.0%	23	
	7- 12 years	3	12.0%	22	88.0%	25	
<b>Place of residence</b>	Rural	4	10.3%	35	89.7%	39	$\chi^2=0.00$ P=1.00 DF=1 NS
	Urban	3	10.3%	26	89.7%	29	
<b>Type of Family</b>	Nuclear family	5	10.0%	45	90.0%	50	$\chi^2=0.02$ P=0.89 DF=1 NS
	Joint family	2	11.1%	16	88.9%	18	
<b>Mother Educational Status</b>	No formal Education	1	10.0%	9	90.0%	10	$\chi^2=0.29$ P=0.96 DF=3 NS
	Primary Education	2	9.5%	19	90.5%	21	
	Higher Secondary Education	3	9.7%	28	90.3%	31	
	Graduate	1	16.7%	5	83.3%	6	
<b>Father Educational Status</b>	No formal Education	2	18.2%	9	81.8%	11	$\chi^2=1.91$ P=0.58 DF=3 NS
	Primary Education	2	7.1%	26	92.9%	28	
	Higher Secondary Education	3	13.0%	20	87.0%	23	
	Graduate	0	0.0%	6	100.0%	6	

<b>Income of the family per month</b>	Less than Rs. 2000	0	0.0%	0	0.0%	0	$\chi^2=2.32$ P=0.31 DF=3 NS
	Rs.2001-Rs.4000	0	0.0%	6	100.0%	6	
	Rs.4001-Rs.6000	5	16.1%	26	83.9%	31	
	Rs.6001 & above	2	6.5%	29	93.5%	31	
<b>Type of house</b>	Roof	2	40.0%	3	60.0%	5	$\chi^2=7.25$ P=0.03* DF=2 S
	Pucca	3	7.9%	33	92.1%	38	
	Concrete	2	8.0%	23	92.0%	25	
<b>Rooms available in house</b>	One room	3	8.0%	23	92.0%	25	$\chi^2=5.45$ P=0.14 DF=3 NS
	Two rooms	2	8.8%	31	91.2%	34	
	Three rooms	2	40.0%	3	60.0%	5	
	More than three	0	0.0%	4	100.0%	4	
<b>Number of household members</b>	2 members	0	0.0%	0	0.0%	0	$\chi^2=9.52$ P=0.02* DF=3 S
	3 – 4 members	2	4.0%	48	96.0%	50	
	5 - 6 members	3	25.0%	9	75.0%	12	
	> 6 members	2	33.3%	4	66.7%	6	
<b>Pet animals in home</b>	Yes	0	0.0%	0	0.0%	0	$\chi^2=0.00$ P=1.00 DF=1 NS
	No	7	10.3%	61	89.7%	68	
<b>Family history of dermatological disorders</b>	Yes	0	0.0%	4	100.0%	4	$\chi^2=0.48$ P=0.48 DF=1 NS
	No	7	10.9%	57	89.1%	64	
<b>Body built</b>	Thin body	7	11.7%	53	88.3%	60	$\chi^2=1.04$ P=0.58 DF=2 NS
	Moderate body	0	0.0%	7	100.0%	7	
	Obese	0	0.0%	1	100.0%	1	
<b>Personal hygiene</b>	Good	1	16.7%	5	83.3%	6	$\chi^2=0.72$ P=0.69 DF=2 NS
	Fair	6	10.3%	52	89.7%	58	
	Poor	0	0.0%	4	100.0%	4	

The above table 9 states, association between the incidence of pyoderma among female Paediatric population with their selected socio demographic variables. Chi - square test reveals that, there was a significant association between the pyoderma and type of house ( $\chi^2=7.25$ ), (P=0.03) and number of household members ( $\chi^2=9.52$ ), (P=0.02) at 0.05 % level (i-e) **Roof type of house and more than six members in house**. Other variables of female Paediatric population was not statistically associated with their selected socio demographic variables.

**Table: 10 Association between the incidence of miliaria rubra among male Paediatric population with their selected socio demographic variables.**

Socio demographic variables		Miliaria rubra				Total	$\chi^2$
		Yes (n=6)		No (n=76)			
		f	%	f	%		
<b>Age</b>	Birth to less than 1 years	1	16.7%	5	83.3%	6	$\chi^2=4.05$ P=0.26 DF=3 NS
	1-3 years	0	0.0%	25	100.0%	25	
	4-6 years	2	6.9%	27	93.1%	29	
	7- 12 years	3	13.6%	19	86.4%	22	
<b>Place of residence</b>	Rural	4	7.8%	47	92.2%	51	$\chi^2=0.06$ P=0.81 DF=1 NS
	Urban	2	6.5%	29	93.5%	31	
<b>Type of Family</b>	Nuclear family	6	9.4%	58	90.6%	64	$\chi^2=1.82$ P=0.18 DF=1 NS
	Joint family	0	0.0%	18	100.0%	18	
<b>Mother Educational Status</b>	No formal Education	1	9.1%	10	90.9%	11	$\chi^2=0.90$ P=0.82 DF=3 NS
	Primary Education	2	11.8%	15	88.2%	17	
	Higher Secondary Education	2	4.9%	39	95.1%	41	
	Graduate	1	7.7%	12	92.3%	13	
<b>Father Educational Status</b>	No formal Education	0	0.0%	14	100.0%	14	$\chi^2=3.90$ P=0.27 DF=3 NS
	Primary Education	4	14.8%	23	85.2%	27	
	Higher Secondary Education	2	5.6%	34	94.4%	36	
	Graduate	0	0.0%	5	100.0%	5	

<b>Income of the family per month</b>	Less than Rs. 2000	0	0.0%	0	0.0%	0	$\chi^2=1.32$ P=0.52 DF=3 NS
	Rs.2001-Rs.4000	1	20.0%	4	80.0%	5	
	Rs.4001-Rs.6000	2	5.7%	33	94.3%	35	
	Rs.6001 & above	3	7.1%	39	92.9%	42	
<b>Type of house</b>	Roof	0	0.0%	3	100.0%	3	$\chi^2=0.37$ P=0.82 DF=2 NS
	Pucca	3	6.7%	42	93.3%	45	
	Concrete	3	8.8%	31	91.2%	34	
<b>Rooms available in house</b>	One room	1	4.2%	23	95.8%	24	$\chi^2=2.57$ P=0.46 DF=3 NS
	Two rooms	4	9.3%	39	90.7%	43	
	Three rooms	0	0.0%	10	100.0%	10	
	More than three	1	20.0%	4	80.0%	5	
<b>Number of household members</b>	2 members	0	0.0%	0	0.0%	0	$\chi^2=2.08$ P=0.35 DF=3 NS
	3 – 4 members	6	9.7%	56	90.3%	62	
	5 - 6 members	0	0.0%	11	100.0%	11	
	> 6 members	0	0.0%	9	100.0%	9	
<b>Pet animals in home</b>	Yes	0	0.0%	0	0.0%	0	$\chi^2=0.00$ P=1.00 DF=1 NS
	No	6	7.3%	76	92.7%	82	
<b>Family history of dermatological disorders</b>	Yes	0	0.0%	3	100.0%	3	$\chi^2=0.24$ P=0.62 DF=1 NS
	No	6	7.6%	73	92.4%	79	
<b>Body built</b>	Thin body	5	6.7%	70	93.3%	75	$\chi^2=5.81$ P=0.06 DF=2 NS
	Moderate body	0	0.0%	5	100.0%	5	
	Obese	1	50.0%	1	50.0%	2	
<b>Personal hygiene</b>	Good	1	20.0%	4	80.0%	5	$\chi^2=1.45$ P=0.48 DF=2 NS
	Fair	5	6.8%	69	93.2%	74	
	Poor	0	0.0%	3	100.0%	3	



The above table 10 states, association between the incidence of miliaria rubra among male Paediatric population with their selected socio demographic variables. Chi-square test reveals that, there was no significant association between miliaria rubra among male Paediatric population with their selected socio demographic variables.

**Table: 11 Association between the incidence of miliaria rubra among female Paediatric population with their selected socio demographic variables.**

Socio demographic variables		Miliaria rubra				Total	$\chi^2$
		Yes (n=6)		No (n=62)			
		f	%	f	%		
<b>Age</b>	Birth to less than 1 years	2	28.6%	5	71.4%	7	$\chi^2=4.00$ P=0.26 DF=3 NS
	1-3 years	1	7.7%	12	92.3%	13	
	4-6 years	1	4.3%	22	95.7%	23	
	7- 12 years	2	8.0%	23	92.0%	25	
<b>Place of residence</b>	Rural	5	12.8%	34	87.2%	39	$\chi^2=1.81$ P=0.18 DF=1 NS
	Urban	1	3.4%	28	96.6%	29	
<b>Type of Family</b>	Nuclear family	6	12.0%	44	88.0%	50	$\chi^2=2.36$ P=0.12 DF=1 NS
	Joint family	0	0.0%	18	100.0%	18	
<b>Mother Educational Status</b>	No formal Education	2	20.0%	8	80.0%	10	$\chi^2=2.65$ P=0.44 DF=3 NS
	Primary Education	1	4.8%	20	95.2%	21	
	Higher Secondary Education	2	6.5%	29	93.5%	31	
	Graduate	1	16.7%	5	83.3%	6	
<b>Father Educational Status</b>	No formal Education	2	18.2%	9	81.8%	11	$\chi^2=1.87$ P=0.59 DF=3 NS
	Primary Education	2	7.1%	26	92.9%	28	
	Higher Secondary Education	2	8.7%	21	92.3%	23	
	Graduate	0	0.0%	6	100.0%	6	

<b>Income of the family per month</b>	Less than Rs. 2000	0	0.0%	0	0.0%	0	$\chi^2=1.43$ P=0.48 DF=3 NS
	Rs.2001-Rs.4000	0	0.0%	6	100.0%	6	
	Rs.4001-Rs.6000	2	6.5%	29	93.5%	31	
	Rs.6001 & above	4	12.9%	27	87.1%	31	
<b>Type of house</b>	Roof	1	20.0%	4	80.0%	5	$\chi^2=1.63$ P=0.44 DF=2 NS
	Pucca	4	10.5%	34	89.5%	38	
	Concrete	1	4.0%	24	96.0%	25	
<b>Rooms available in house</b>	One room	1	4.0%	24	96.0%	25	$\chi^2=2.87$ P=0.41 DF=3 NS
	Two rooms	4	11.8%	30	88.2%	34	
	Three rooms	0	0.0%	5	100.0%	5	
	More than three	1	25.0%	3	75.0%	4	
<b>Number of household members</b>	2 members	0	0.0%	0	0.0%	0	$\chi^2=0.67$ P=0.71 DF=3 NS
	3 – 4 members	5	10.0%	45	90.0%	50	
	5 - 6 members	1	8.3%	11	91.7%	12	
	> 6 members	0	0.0%	6	100.0%	6	
<b>Pet animals in home</b>	Yes	0	0.0%	0	0.0%	0	$\chi^2=0.00$ P=1.00 DF=1 NS
	No	6	8.8%	62	91.2%	68	
<b>Family history of dermatological disorders</b>	Yes	0	0.0%	4	100.0%	4	$\chi^2=0.48$ P=0.48 DF=1 NS
	No	6	9.4%	58	90.6%	64	
<b>Body built</b>	Thin body	6	10.0%	54	90.0%	60	$\chi^2=0.41$ P=0.52 DF=2 NS
	Moderate body	0	0.0%	7	100.0%	7	
	Obese	0	0.0%	1	100.0%	1	
<b>Personal hygiene</b>	Good	0	0.0%	6	100.0%	6	$\chi^2=1.13$ P=0.56 DF=2 NS
	Fair	6	10.3%	52	89.7%	58	
	Poor	0	0.0%	4	100.0%	4	

The above table 11 states, association between the incidence of miliaria rubra among female Paediatric population with their selected socio demographic variables. Chi-square test reveals that, there was no significant association between miliaria rubra among female Paediatric population with their selected socio demographic variables.

# *Discussion*

## **CHAPTER – V**

### **DISCUSSION**

Based on the objectives of the study and hypothesis, this chapter deals with detailed discussion of the results of the data interpreted from the statistical analysis. The present study was focused to assess the incidence of dermatological disorders among Paediatric population in Skin outpatient department at Government Rajaji Hospital, Madurai.

The aim of the study was to assess the incidence of dermatological disorders among Paediatric population at Government Rajaji Hospital, Madurai. 150 samples were selected by non – probability (Consecutive sampling) technique. The level of incidence of dermatological disorders among Paediatric population was assessed and observed through the diagnosis of skin disorders by Medical officer. The tool used for the data collection was validated by the experts in the departments of Paediatric, Dermatology and Nursing. Reliability of the tool was assessed by using test-retest reliability correlation coefficient.

#### **The objectives of the study were to**

- To assess the incidence of dermatological disorders among male and female Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.
- To compare the incidence of dermatological disorders among male and female Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.

- To associate the dermatological disorders among male and female Paediatric population in skin Outpatient department at Government Rajaji Hospital, Madurai with their selected socio demographic variables.

**The following hypothesis were tested at 0.05 level of significance**

**H<sub>1</sub>** :There is a significant difference in the incidence of dermatological disorders among male and female Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.

**H<sub>2</sub>** :There is a significant association between dermatological disorders among male and female Paediatric population in Skin Outpatient Department with their selected socio demographic variables.

**The findings of the study were discussed under the following headings**

- Distribution of Paediatric population according to their selected socio demographic variables.
- Describe the comparison of dermatological disorders among male and female Paediatric population.
- Describe the association between the dermatological disorders among male and female Paediatric population in skin outpatient department at Government Rajaji Hospital, Madurai with their selected socio demographic variables.

The dermatological disorders has been a great problem on our society. The treatment for Paediatric population with dermatological disorders are regarded as a heavy burden as a government. It is estimated that there are 3 millions of Paediatric population with dermatological disorders.

The sample included 150 Paediatric population respectively.

## **5.1 Distribution of Paediatric population to their socio demographic variables**

An analysis of socio demographic variables of the male and female Paediatric population in Skin outpatient department at Government Rajaji Hospital, Madurai.

- According to the age group in male Paediatric population, majority of the subjects 29 (35.37%) belongs to the age group between 4 - 6 years, whereas in female Paediatric population 25 (36.76 %) belongs to the age group between 7-12years.
- As far as place of residence in male Paediatric population, majority of the subjects 51 (62.20%) were from rural area, whereas in the female Paediatric population 39 (57.35%) were from rural area, 29 (42.65%).
- With respect of the type of family, majority of the male Paediatric population 64 (78.05%) were from nuclear family, whereas in the female Paediatric population 50 (73.53%) were from nuclear family.
- When discussing educational status of the mother among male Paediatric population, majority of the subjects 41 (50 %) studied higher secondary education, whereas in the female Paediatric population 31 (45.49%) studied higher secondary education.
- When discussing educational status of the father among male Paediatric population, majority of the subjects 36 (43.90%) studied upto higher secondary education, whereas in the female Paediatric population 28 (41.18%) studied upto primary education.
- While comparing the family income per month among male Paediatric population, majority of the subjects 42(51.22%) were earned more than Rs.6000, whereas in the female Paediatric population 31 (45.59%) were earned between Rs.4001-6000 and more than Rs.6000.



- While stating type of house among male Paediatric population, majority of the subjects 45 (54.88%), whereas in the female Paediatric population 38 (55.89%) had pucca house.
- While considering the rooms available in the house among male Paediatric population, majority of the subjects 43 (52.43%), whereas in female Paediatric population 34 (50 %) had two rooms in the house.
- While denoting the number of household members in male and female Paediatric population, majority of the subjects 62 (75.61%) and 50 (73.53%) had between 3- 4 members respectively.
- While stating the pet animals in the home among male Paediatric population, majority of the subjects 82 (100%), whereas in female Paediatric population 68 (100%) were not having pet animal at home.
- When identifying the history of dermatological disorders in male Paediatric population, majority of the subjects 79 (96.34%), whereas in female Paediatric population 64 (94.12%) were not having history of dermatological disorders.
- Regarding the body built among male Paediatric population, majority of the subjects 75 (91.46%), whereas in female Paediatric population 60 (88.24%) had thin body built.
- While comparing the personal hygiene among male Paediatric population, majority of the subjects 74 (90.24%), whereas in female Paediatric population 58 (85.30%) had fair personal hygiene.

## **5.2 Discussion of Subjects Based on its Objectives**

**The first objective of the study was to assess the incidence of dermatological disorders among male and female Paediatric population at Government Rajaji Hospital, Madurai.**

The present study reveals that majority of 82 (54.7%) male Paediatric Population, 68 (45.33%) female Paediatric population had dermatological disorders.

The present study findings was supported by **Elmoneium (2016 )** conducted a cross sectional study on incidence of skin diseases among school children a survey in the Sohag Governorate by random sampling method. The total sample of 1804 children with aged between 4 – 12 years were examined. Result revealed that skin disorders were observed in 845 children, yielding an overall incidence of 41.5 % and 1056 (58.5%) were clinically free from disease. Pediculosis capitis, pityriasis alba, popular urticarial, and chicken pox were the most commonly observed, accounting for 67.4% of the disorders. Infectious kin diseases represented 59.1% of the skin disorders. Rural residency, older age, female sex, overcrowding, and a low socio economic status were the significant risk factors. Only 19.5 % of the children with skin diseases had sought medical advice. The incidence of skin disease in boys was significantly higher than that in girls ( $P < 0.05$ ).

**The second objective of the study was to compare the incidence of dermatological disorders among male and female Paediatric population**

- Among the majority of the male paediatric population 14 (17.07 %) were had impetigo and 12 (14.63 %) were had scabies. Whereas in the female paediatric population 8 (11.76 %) were had impetigo and 7 (10.29 %) were had scabies.

- While denoting the pyoderma majority of the male paediatric population 9 (10.98 %), whereas in the female Paediatric population 7 (10.29%) were had Pyoderma.
- While discussing the warts none of them had warts in male Paediatric population population. Whereas in the female 2 (2.94%) were had warts.
- While stating the dermatological disorders among male Paediatric population 3 (3.66%) were had molluscum contagiosum and 6 (7.32%) were miliaria rubra. Whereas in the female Paediatric population 6 (8.82%) were miliaria rubra and none of them had molluscum contagiosum.
- While considering the dermatological disorders among male Paediatric population 1 (1.22%) was atopic dermatitis, none of them had Juvenile Papular dermatitis. Whereas in the female Paediatric population 4 (5.88%) were atopic dermatitis and 1 (1.47%) was Juvenile Papular dermatitis.
- While discussing the dermatological disorders among male Paediatric population 3 (3.66%) were contact dermatitis and 2 (2.44%) were urticaria. Whereas in the female Paediatric population 1 (1.47%) was contact dermatitis and 10 (14.71%) were urticaria.
- While mentioning the dermatological disorders among male Paediatric population 6 (7.32%) were Insect bite allergy and none of them had psoriasis. Whereas in the female Paediatric population 2 (2.94%) were Insect bite allergy and 1 (1.47%) was psoriasis.
- While stating the dermatological disorders among male Paediatric population 1(1.22 %) had vitiligo and eczema and 3 (3.66 %) had hand foot mouth disease and perioritis, whereas in the female Paediatric population 1 (1.47%) had eczema and perioritis and none of them vitiligo and hand foot mouth disease.

- None of them had xerosis, herpes zoster and tinea capitates among male Paediatric population. Whereas in the female Paediatric population 1 (1.47%) was had xerosis, herpes zoster and tinea capitates.
- While considering tinea versicolor and tinea corporis among male Paediatric population majority 4 (4.88 %) were suffered. Whereas in the female Paediatric population 2 (2.94%) had tinea corporis and none of them had tinea versicolor. Both in male and female Paediatric population none of them had candidaiasis and pityriasis versicolor.
- While discussing the dermatological disorders among male Paediatric population 2 (2.44%) were had secondary pyoderma, 1 (1.22%) was had pediculosis and folliculitis. Whereas in the female Paediatric population 3 (4.41%) were had pediculosis, 1 (1.47%) had secondary pyoderma and folliculitis.
- In incidence of dermatological disorders in male 82 (54.7%), whereas in the female 68 (45.3%) had dermatological disorders. The chi-square value is 3.92 at 0.05 level.
- The present study findings was supported by **Hussein Odeibat MD (2014)** conducted a pattern of skin diseases among pediatric patients attending the pediatric dermatological clinic at king Hussein medical center. A total of 5004 patients were included in the study. 2577 (51.5 %) were males and 2427 (48.5%) were females with a male to female ratio of 1.1 :1. The age ranged from one day to 15 years with a mean of  $8.6 \pm 74$  years. As per survey report revealed that bacterial infection (10.4 %) to be the most common entity followed by viral infections (10.2 %), fungal infections (9.5 %) and parasitic infestation (5.2% ).

**Hence the stated hypothesis H<sub>1</sub> there is a significant difference in the incidence of male and female Paediatric population in skin outpatient department at Government Rajaji Hospital , Madurai was accepted.**

**The third objective of the study was to associate the dermatological disorders among male and female Paediatric population in skin outpatient department at Government Rajaji Hospital, Madurai with their selected socio demographic variables.**

In order to find out the association between the dermatological disorders among male Paediatric population with impetigo and age ( $\chi^2=8.26$ ), (P=0.04), body built ( $\chi^2=7.22$ ), (P=0.02) and personal hygiene ( $\chi^2=6.27$ ), (P=0.04). While considering scabies and mother's educational status ( $\chi^2=12.01$ ), (P=0.01), father's educational status ( $\chi^2=8.09$ ), (P=0.05) and personal hygiene ( $\chi^2=7.43$ ), (P=0.02). While stating pyoderma and place of residence ( $\chi^2=9.55$ ), (P=0.01) and personal hygiene ( $\chi^2=10.31$ ), (P=0.01)

In order to find out the association between the dermatological disorders among female Paediatric population with impetigo and type of house ( $\chi^2=7.15$ ), (P=0.03), body built ( $\chi^2=8.43$ ), (P=0.02) and personal hygiene ( $\chi^2=9.34$ ), (P=0.01). While considering scabies and rooms available in house ( $\chi^2=8.10$ ), (P=0.05), number of household members ( $\chi^2=9.52$ ), (P=0.02) and personal hygiene ( $\chi^2=9.34$ ), (P=0.01). While stating pyoderma and type of house ( $\chi^2=7.25$ ), (P=0.03) and number of household members ( $\chi^2=9.52$ ), (P=0.02).

The present study was supported by **Doaa Salh Hgab.,(2015)** conducted a descriptive study was performed on primary school children in urban and rural areas Kafr El-Sheikh. A cross sectional was conducted and 2104 children were selected

using a non random sampling method by predesigned questionnaire. Scabies, pyoderma, impetigo, molluscum contagiosum, Pitryriasis alba and chicken pox were the most commonly observed, accounting for 72.3 % of the disorders. The results showed significant variations in the risk of skin disorders by such as residence, paternal education and occupation, maternal education, sleeping with others, having animals home, dealing with animals outside the house, type of building for living , family history of itchy rash and sharing clothes with others. The incidence of skin disease in rural was significantly higher than that in urban children.( P <0.05).

**Hence the hypothesis H<sub>2</sub> -there is a significant association between the incidence of dermatological disorders among male and female Paediatric population with their selected socio demographic variables was accepted.**

*Summary and  
Conclusion,  
Implications &  
Recommendations*

## **CHAPTER VI**

### **SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS**

This chapter presents the summary of the study and conclusion drawn, clarifies the limitation of the study, the implications of the recommendations, different areas like nursing practice, nursing education, nursing administration and nursing research deserve implication.

#### **6.1 Summary**

The present study was done to assess the incidence of dermatological disorders among Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.

#### **The objectives of the study were**

- To assess the incidence of dermatological disorders among male and female Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.
- To compare the incidence of dermatological disorders among male and female Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.
- To associate the dermatological disorders among male and female Paediatric population in skin Outpatient department at Government Rajaji Hospital, Madurai with their selected socio demographic variables.



**The following hypothesis were tested at 0.05 level of significance**

**H<sub>1</sub>** : There is a significant difference in the incidence of dermatological disorders among male and female Paediatric population in Skin Outpatient Department at Government Rajaji Hospital, Madurai.

**H<sub>2</sub>** : There is a significant association between dermatological disorders among male and female Paediatric population in Skin Outpatient Department with their selected socio demographic variables.

**The study assumptions were**

- Children between the age group between birth to 12 years may affected with various dermatological disorders.

The conceptual model of this study was based on modified “San Francisco burden of disease and injury: Determinants of health. This model helps the researcher to identify the dermatological Paediatric population. This study was conducted by using Non Experimental – Descriptive research design. Non probability consecutive sampling technique was used to select the sample. The study consists of 150 Paediatric population registered in Skin Outpatient Department at Government Rajaji hospital, Madurai. After testing the validity and reliability of the tool, pilot study was conducted on 30 non study subjects in Skin Outpatient Department at Government Rajaji Hospital, Madurai to find out the feasibility and practicability. The main study was started from 04/06/2018 to 13/07/2018. Data gathered and analyzed by using both descriptive and inferential statistics.

## **The data collection tool consisted of two parts**

**Section I:** Socio Demographic variables

**Section II:** Dermatological disorders

### **Section I (Socio demographic variables)**

It consists of socio demographic variables of the clients. The socio demographic variables age, sex, residence, type of family, education, income, types of house, Number of rooms available in house, household members, pet animals at home, family history of dermatological disorders , body built, Personal hygiene.

### **Section II**

#### **Presence of Dermatological disorders.**

The content and tool was validated by experts in the field of Paediatric, Dermatology and Child Health Nursing. Data collection was done by using the prescribed tool to assess the incidence of Paediatric dermatological disorders.

Collected data was analyzed by using both descriptive statistics (Frequency and Percentage) and inferential statistics (Chi-Square) and results were analyzed.

### **6.2 Major findings of the study**

- According to the age group in male Paediatric population, majority of the subjects 29 (35.37%) belongs to the age group between 4 - 6 years, whereas in female Paediatric population 25 (36.76 %) belongs to the age group between 7-12years.
- As far as place of residence in male Paediatric population, majority of the subjects 51 (62.20%) were from rural area, whereas in the female Paediatric population 39 (57.35%) were from rural area, 29 (42.65%).

- With respect of the type of family, majority of the male Paediatric population 64 (78.05%) were from nuclear family, whereas in the female Paediatric population 50 (73.53%) were from nuclear family.
- When discussing educational status of the mother among male Paediatric population, majority of the subjects 41 (50 %) studied higher secondary education, whereas in the female Paediatric population 31 (45.49%) studied higher secondary education.
- When discussing educational status of the father among male Paediatric population, majority of the subjects 36 (43.90%) studied upto higher secondary education, whereas in the female Paediatric population 28 (41.18%) studied upto primary education.
- While comparing the family income per month among male Paediatric population, majority of the subjects 42(51.22%) were earned more than Rs.6000, whereas in the female Paediatric population 31 (45.59%) were earned between Rs.4001-6000 and more than Rs.6000.
- While stating type of house among male Paediatric population, majority of the subjects 45 (54.88%), whereas in the female Paediatric population 38 (55.89%) had pucca house.
- While considering the rooms available in the house among male Paediatric population, majority of the subjects 43 (52.43%), whereas in female Paediatric population 34 (50 %) had two rooms in the house.
- While denoting the number of household members in male and female Paediatric population, majority of the subjects 62 (75.61%) and 50 (73.53%) had between 3- 4 members respectively.

- While stating the pet animals in the home among male Paediatric population, majority of the subjects 82 (100%), whereas in female Paediatric population 68 (100%) were not having pet animal at home.
- When identifying the history of dermatological disorders in male Paediatric population, majority of the subjects 79 (96.34%), whereas in female Paediatric population 64 (94.12%) were not having history of dermatological disorders.
- Regarding the body built among male Paediatric population, majority of the subjects 75 (91.46%), whereas in female Paediatric population 60 (88.24%) had thin body built.
- While comparing the personal hygiene among male Paediatric population, majority of the subjects 74 (90.24%), whereas in female Paediatric population 58 (85.30%) had fair personal hygiene.
- Among the majority of the male paediatric population 14 (17.07 %) were had impetigo and 12 (14.63 %) were had scabies. Whereas in the female Paediatric population 8 (11.76 %) were had impetigo and 7 (10.29 %) were had scabies.
- While denoting the pyoderma majority of the male Paediatric population 9 (10.98 %), whereas in the female Paediatric population 7 (10.29%) were had Pyoderma.
- While discussing the warts none of them had warts in male Paediatric population population. Whereas in the female 2 (2.94%) were had warts.
- While stating the dermatological disorders among male Paediatric population 3 (3.66%) were had molluscum contagiosum and 6 (7.32%) were miliaria rubra. Whereas in the female Paediatric population 6 (8.82%) were miliaria rubra and none of them had molluscum contagiosum.

- While considering the dermatological disorders among male Paediatric population 1 (1.22%) was atopic dermatitis, none of them had Juvenile Papular dermatitis. Whereas in the female Paediatric population 4 (5.88%) were atopic dermatitis and 1 (1.47%) was Juvenile Papular dermatitis.
- While discussing the dermatological disorders among male Paediatric population 3 (3.66%) were contact dermatitis and 2 (2.44%) were urticaria. Whereas in the female Paediatric population 1 (1.47%) was contact dermatitis and 10 (14.71%) were urticaria.
- While mentioning the dermatological disorders among male Paediatric population 6 (7.32%) were Insect bite allergy and none of them had psoriasis. Whereas in the female Paediatric population 2 (2.94%) were Insect bite allergy and 1 (1.47%) was psoriasis.
- While stating the dermatological disorders among male Paediatric population 1 (1.22 %) had vitiligo and eczema and 3 (3.66 %) had hand foot mouth disease and perioritis, whereas in the female Paediatric population 1 (1.47%) had eczema and perioritis and none of them vitiligo and hand foot mouth disease.
- None of them had xerosis, herpes zoster and tinea capitates among male Paediatric population. Whereas in the female Paediatric population 1 (1.47%) was had xerosis, herpes zoster and tinea capitates.
- While considering tinea versicolor and tinea corporis among male Paediatric population majority 4 (4.88 %) were suffered. Whereas in the female Paediatric population 2 (2.94%) had tinea corporis and none of them had tinea versicolor. Both in male and female Paediatric population none of them had candidaiasis and pityriasis versicolor.

- While discussing the dermatological disorders among male Paediatric population 2 (2.44%) were had secondary pyoderma, 1 (1.22%) was had pediculosis and folliculitis. Whereas in the female Paediatric population 3 (4.41%) were had pediculosis, 1 (1.47%) had secondary pyoderma and folliculitis.
- In incidence of dermatological disorders in male 82 (54.7%), whereas in the female 68 (45.3%) had dermatological disorders. The chi-square value is 3.92 at 0.05 level.
- The association between the dermatological disorders among male Paediatric population with impetigo and age ( $\chi^2=8.26$ ), (P=0.04), body built ( $\chi^2=7.22$ ), (P=0.02) and personal hygiene ( $\chi^2=6.27$ ), (P=0.04). While considering scabies and mother's educational status ( $\chi^2=12.01$ ), (P=0.01), father's educational status ( $\chi^2=8.09$ ), (P=0.05) and personal hygiene ( $\chi^2=7.43$ ), (P=0.02). While stating pyoderma and place of residence ( $\chi^2=9.55$ ), (P=0.01) and personal hygiene ( $\chi^2=10.31$ ), (P=0.01)
- The association between the dermatological disorders among female Paediatric population with impetigo and type of house ( $\chi^2=7.15$ ), (P=0.03), body built ( $\chi^2=8.43$ ), (P=0.02) and personal hygiene ( $\chi^2=9.34$ ), (P=0.01). While considering scabies and rooms available in house ( $\chi^2=8.10$ ), (P=0.05), number of household members ( $\chi^2=9.52$ ), (P=0.02) and personal hygiene ( $\chi^2=9.34$ ), (P=0.01). While stating pyoderma and type of house ( $\chi^2=7.25$ ), (P=0.03) and number of household members ( $\chi^2=9.52$ ), (P=0.02).

### **6.3 Conclusion**

The study findings evidence that most of the Paediatric population attending Skin Outpatient Department at Government Rajaji Hospital Madurai that the male

Paediatric Population had more dermatological disorders than the female Paediatric population.

#### **6.4 Implications of the study**

The finding of the study have several implications on nursing practice, education, administration and nursing research that can be used in the following areas of profession

##### **Nursing practice**

- This study findings will create awareness among the nurses about the incidence of dermatological manifestations among Paediatric clients
- The nurses can learn and use various tool like children dermatology life quality index to assess the dermatological manifestations among Paediatric clients.
- The nurses can gain the knowledge regarding various dermatological problems and causes of dermatological problems among Paediatric clients.
- The nurse will practice infection control measures to prevent dermatological problem among children.

##### **Nursing education**

- The nurse educator create the awareness to the students about the problems faced by the Paediatric dermatological disorders clients in various domain such as physical, psychological and social domain.
- The nurse educators plan and conduct group discussion among nursing students to discuss various dermatological disorders and its causes.
- Nursing faculties can educate the nursing students and motivate the students to prepare and educate dermatological disorders to children and their parents.

### **Nursing research**

- The study findings will encourage further research studies to assess the incidence of dermatological disorders in and around Madurai city.
- Nurse researchers develop newer tools for dermatological disorders specify to particular domain such as physical, psychological, social among Paediatric population.
- The nurse able to identify the various areas of research in the field of dermatological nursing.

### **Nursing Administration**

- Administrator can encourage the nurses to identify the dermatological disorders in an early stage among Paediatric clients.
- Nursing administrators can arrange in service education or staff development programme periodically for creating the awareness on problem and management of dermatological disorders among children.
- Nurse administrators should motivate the nurses to identify the symptoms of dermatological disorders by using questionnaire like General Health Questionnaire.

### **6.5 Recommendations**

Based on the findings of the study, the recommendations offered for future research were

- A comparative study can be conducted with Paediatric clients in various hospital in Tamilnadu.
- A prospective study can be undertaken to for seen the dermatological complications among Paediatric clients



- True experimental study can be conducted to evaluate the effectiveness of alternative system of medicine on Paediatric dermatological disorders.
- Researcher can conduct experimental study with large sample of school childrens.

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# *Appendices*



## APPENDIX – I

### ETHICAL COMMITTEE APPROVAL LETTER



**MADURAI MEDICAL COLLEGE**  
**MADURAI, TAMILNADU, INDIA -625 020**  
(Affiliated to The Tamilnadu Dr.MGR Medical University,  
Chennai, Tamil Nadu)



<b>ETHICS COMMITTEE CERTIFICATE</b>	
Prof Dr V Nagaraajan MD MNAMS DM (Neuro) DSc.,(Neurosciences ) DSc ( Hons) Professor Emeritus in Neurosciences, Tamil Nadu Govt Dr MGR Medical University Chairman, IEC	Name of the Candidate : C.Kalyani
Dr.M.Shanthi, MD., Member Secretary, Professor of Pharmacology, Madurai Medical College, Madurai.	Course : M.Sc., in Child Health Nursing
<b>Members</b> 1. Dr.V.Dhanalakshmi, MD, Professor of Microbiology & Vice Principal, Madurai Medical College	Period of Study : 2016-2018
2. Dr.Sheela Mallika rani, M.D., Anaesthesia, Medical Superintendent Govt. Rajaji Hospital, Madurai	College : MADURAI MEDICAL COLLEGE
3.Dr.V.T.Premkumar,MD(General Medicine) Professor & HOD of Medicine, Madurai Medical & Govt. Rajaji Hospital, College, Madurai.	Research Topic : A study to assess the incidence of dermatological disorders among pediatric population in skin OPD at Govt. Rajaji Hospital, Madurai
4.Dr.S.R.Dhamotharan, MS., Professor & H.O.D i/c, Surgery, Madurai Medical College & Govt. Rajaji Hospital, Madurai.	Ethical Committee as on : 16.05.2018
5.Dr.G.Meenakumari, MD., Professor of Pathology, Madurai Medical College, Madurai	The Ethics Committee, Madurai Medical College has decided to inform that your Research proposal is accepted.
6.Mrs.Mercy Immaculate Rubalatha, M.A., B.Ed., Social worker, Gandhi Nagar, Madurai	 Member Secretary
7.Thiru.Pala.Ramasamy, B.A.,B.L., Advocate, Palam Station Road, Sellur.	 Chairman Prof Dr V Nagaraajan M.D., MNAMS, D.M., Dsc.,(Neuro), Dsc (Hon) CHAIRMAN IEC - Madurai Medical College Madurai
8.Thiru.P.K.M.Chelliah, B.A., Businessman,21, Jawahar Street, Gandhi Nagar, Madurai.	 Dean / Convenor DEAN Madurai Medical College Madurai-20



## APPENDIX - II

### CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic data

SECTION B- Dermatological disorders

Prepared for data collection by Kalyani.C, II year M.Sc (N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on thesis entitled **“A study to assess the incidence of dermatological disorders among Paediatric population in Skin Outpatient Department at Government Rajaji Hospital Madurai”** has been validated by me.

SIGNATURE OF THE EXPERT

NAME: **Dr. S. BALASANKAR MD DCH,**

DESIGNATION:

**DIRECTOR I/C  
INSTITUTE OF CHILD HEALTH &  
RESEARCH CENTRE  
GOVT. RAJAJI HOSPITAL  
MADURAI-625001.**

ADDRESS:

DATE: **19/05/18**

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic data

SECTION B- Dermatological disorders

Prepared for data collection by Kalyani.C, II year M.Sc (N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on thesis entitled **“A study to assess the incidence of dermatological disorders among Paediatric population in Skin Outpatient Department at Government Rajaji Hospital Madurai”** has been validated by me.

SIGNATURE OF THE EXPERT



19/5/18

NAME: **Dr. G. GEETHA RANI, M.D.,D.D.,**

DESIGNATION: **PROFESSOR & HOD  
DEPARTMENT OF DERMATOLOGY  
MADURAI MEDICAL COLLEGE  
MADURAI**

ADDRESS:

19/5/18

DATE:

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic data

SECTION B- Dermatological disorders

Prepared for data collection by Kalyani.C, II year M.Sc (N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on thesis entitled **“A study to assess the incidence of dermatological disorders among Paediatric population in Skin Outpatient Department at Government Rajaji Hospital Madurai”** has been validated by me.

  
SIGNATURE OF THE EXPERT

NAME: *Dr. A. HELEN M PERDITA .*

DESIGNATION: *Principal .*

ADDRESS: *Madurai . Apollo Coni .*

DATE: *20/5/18*

PRINCIPAL  
MADURAI APOLLO COLLEGE OF NURSING  
ELIYARPATHI VILLAGE  
MADURAI SOUTH TALUK, MADURAI-22

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic data

SECTION B- Dermatological disorders

Prepared for data collection by Kalyani.C, II year M.Sc (N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on thesis entitled "A study to assess the incidence of dermatological disorders among Paediatric population in Skin Outpatient Department at Government Rajaji Hospital Madurai" has been validated by me.



SIGNATURE OF THE EXPERT

NAME: Ms. A. ANGELINE BEULAH

DESIGNATION: ASSO. PROFESSOR

ADDRESS: E.S. COLLEGE OF NURSING,  
VILLUPURAM.

DATE: 19/05/18



CONTENT VALIDITY CERTIFICATE

This is to certify that the tool

SECTION A- Demographic data

SECTION B- Dermatological disorders

Prepared for data collection by Kalyani.C, II year M.Sc (N) student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on thesis entitled "A study to assess the incidence of dermatological disorders among Paediatric population in Skin Outpatient Department at Government Rajaji Hospital Madurai" has been validated by me.

*R. Jothilakshmi*  
SIGNATURE OF THE EXPERT

NAME: *R. JOTHILAKSHMI*

DESIGNATION: *Professor*

ADDRESS: *Sacred Heart nursing college,  
madurai-20.*

DATE:

**R. JOTHI LAKSHMI, M.Sc.,(N)Ph.D**  
Associate Professor  
**Sacred Heart Nursing College**  
**MADURAI - 20**

**APPENDIX - III**  
**INFORMED CONSENT FORM**

Name:

Date:

Here I am acknowledge that information regarding the project study topic was explain to me and the positive reason was pointed out. I am voluntarily willing to participate with my child in the study. At any time I am free to exclude from the study and promised that my all personal information should be kept in confidential.

Signature of the participants

## ஆராய்ச்சி ஒப்புதல் கடிதம்

பெயர் :

தேதி:

இந்த ஆராய்ச்சியின் விவரங்களும் அதன் நோக்கங்களும் எனக்கு தெளிவாக விளக்கப்பட்டது. எனக்கு விளக்கப்பட்ட விவரங்களை நான் புரிந்து கொண்டு நான் எனது சம்மதத்தை தெரிவிக்கிறேன். இந்த ஆராய்ச்சியில் பிறரின் நிபந்தனையின்றி என் சொந்த விருப்பத்தின் பேரில் தான் பங்கு பெறுகிறேன். மற்றும் நான் இந்த ஆராய்ச்சியில் இருந்து எந்நேரமும் பின் வாங்கலாம் என்பதையும் அதனால் எந்த பாதிப்பும் ஏற்படாது என்பதையும் புரிந்து கொண்டேன். நான் இந்த ஆராய்ச்சியின் விவரங்களை கொண்டு தகவல் தாளை பெற்று கொண்டேன். நான் என்னுடைய சுய நினைவுடன் மற்றும் முழு சுதந்திரத்துடன் இந்த ஆராய்ச்சியில் என்னையும் என் குழந்தையையும் இணைத்துக்கொள்ள சம்மதிக்கிறேன்.

கையொப்பம்



## APPENDIX - IV

### LETTER SEEKING PERMISSION TO CONDUCTING THE STUDY

From

C.Kalyani  
M.Sc (N) II year student  
College of Nursing  
Madurai Medical College  
Madurai – 20

To

The Director i/c  
Institute of Child Health and Research Centre  
Government Rajaji Hospital  
Madurai

Through the proper channel,

Respected Sir,

**Sub:** College of Nursing, Madurai Medical College, Madurai – M.Sc (N) II year  
Child Health Nursing Student – Permission for conducting Pilot study and  
Main study from 21<sup>st</sup> May onwards in Skin Outpatient Department at GRH,  
Madurairequest – regarding.

As per the Indian Nursing Council and The Tamilnadu Dr.M.G.R Medical  
University curriculum requirement of M.Sc Nursing candidates are required to conduct a  
dissertation study for the partial fulfillment of the course in their respective departments.

I wish to conduct a study topic **“A study to assess the incidence of  
dermatological disorders among Paediatric population in Skin Outpatient Department at  
Government Rajaji Hospital Madurai”**. I assure that I will not interfere with the routine  
activities of the department.

Hence, I kindly request you to consider my requisition and permit me to conduct  
the study in this setting.

Thanking you,

Place: Madurai

Date: 18.05.2018

Yours Obediently  
*Kalyani.C*  
(Kalyani.C)

*Forwarded*  
*S.P.*  
*18/5/18*

*M. D. S. P.*

*Study may be conducted*  
*R. D. S. P.*

LETTER SEEKING PERMISSION TO CONDUCTING THE STUDY

From

C.Kalyani  
M.Sc (N) II year student  
College of Nursing  
Madurai Medical College  
Madurai – 20

To

The Professor and Head of the Department  
Department of Dermatology  
Government Rajaji Hospital  
Madurai

Through the proper channel

Respected Madam,

**Sub:** College of Nursing, Madurai Medical College, Madurai – M.Sc (N) II year  
Child Health Nursing Student – Permission for conducting Pilot study and  
main study from 21<sup>st</sup> May onwards in Skin Outpatient Department at GRH,  
Madurai request – regarding.

.....

As per the Indian Nursing Council and The Tamilnadu Dr.M.G.R Medical  
University curriculum requirement of M.Sc Nursing candidates are required to conduct a  
dissertation study for the partial fulfillment of the course in their respective departments.

I wish to conduct a study topic “**A study to assess the incidence of  
dermatological disorders among Paediatric population in Skin Outpatient Department at  
Government Rajaji Hospital Madurai**”. I assure that I will not interfere with the routine  
activities of the department.

Hence, I kindly request you to consider my requisition and permit me to conduct  
the study in this setting.

Thanking you,

Date: Madurai

Place: 18.05.2018

Yours Obediently  
*Kalyani.C*  
(Kalyani.C)

Forwarded  
S.P.  
18/5/18

*M. Mahesh*

*permitted*  
*Geetha Rani*  
*18/5/18*  
**Dr. G. GEETHA RANI, M.D., D.D.,**  
SKIN SPECIALIST,  
GOVT. RAJAJI HOSPITAL,  
MADURAI.

**APPENDIX – V**  
**RESEARCH ENGLISH TOOL**  
**SECTION - A SOCIODEMOGRAPHIC VARIABLES**

**Sample No:**

**Date:**

**Sex :**

**Place:**

1. Age
  - a) Birth to less than 1 year
  - b) 1-3 years
  - c) 4-6 years
  - d) 7- 12 years
  
2. Place of Residence
  - a) Rural
  - b) Urban
  
3. Type of family
  - a) Nuclear family
  - b) Joint family
  
4. Mother Educational Status
  - a) No formal Education
  - b) Primary Education
  - c) Higher Secondary Education
  - d) Graduate
  
5. Father Educational Status
  - a) No formal Education
  - b) Primary Education
  - c) Higher Secondary Education
  - d) Graduate
  
6. Income of the family per month
  - a) Less than Rs 2000
  - b) Rs.2001-Rs.4000
  - c) Rs.4001-Rs.6000
  - d) Rs 6001 and above

7. Type of house
- a) Roof
  - b) Pucca
  - c) Concrete
8. How many rooms are available in your house?
- a) One
  - b) Two
  - c) Three
  - d) More than three
9. Number of household members
- a) 2 members
  - b) 3 – 4 members
  - c) 5 - 6 members
  - d) > 6 members
10. Do you have pet animals at home?
- a) Yes
  - b) No
11. Do you have family history of dermatological disorders?
- a) Yes
  - b) No
12. Body built
- a) Thin body
  - b) Moderate body
  - c) Obese
13. Personal hygiene
- a) Good
  - b) Fair
  - c) Poor

## SECTION - B DERMATOLOGICAL DISORDERS

S.No	Dermatological Disorders	Male	Female
1.	Impetigo		
2.	Scabies		
3.	Pyoderma		
4.	Warts		
5.	Molluscum contagiosm		
6.	Chickenpox		
7.	Miliaria Rubra		
8.	Atopic dermatitis		
9.	Juvenile Papular dermatitis		
10.	Seborrhoeic dermatitis		
11.	Contact dermatitis		
12.	Urticaria		
13.	Insect bite allergy		
14.	Psoriasis		
15.	Vitilogo		
16.	Eczema		
17.	Hand Foot Mouth Disease		
18.	Periporitis		
19.	Pityriasis alba		
20.	Furunculosis		
21.	Pitryriais rosea		
22.	Lichen planus		
23.	Lichen striatis		
24.	Xerosis		
25.	Herpes zoster		
26.	Tinea capitates		
27.	Tinea Versicolor		
28.	Tinea corporis		
29.	Candidaiasis		
30.	Pityriasis versicolor		
31.	Secondary Pyoderma		
32.	Pediculosis		
33.	Folliculitis		

**APPENDIX - VI**  
**RESEARCH TOOL TAMIL**

பகுதி - I - தன்னிலை விபரக்குறிப்பு

மாதிரி எண் :

நாள் :

பாலினம் :

இடம் :

1. வயது

- அ) பிறந்ததில் இருந்து ஒரு வயதிற்குள்
- ஆ) 1-3 வரை
- இ) 4-6 வரை
- ஈ) 7-12 வரை

2. வசிக்கும் இடம்

- அ) கிராமம்
- ஆ) நகரம்

3. குடும்ப வகை

- அ) தனிக் குடும்பம்
- ஆ) கூட்டுக் குடும்பம்

4. அம்மாவின் கல்விநிலை

- அ) படிக்காதவர்
- ஆ) ஆரம்பக்கல்வி
- இ) மேல்நிலைக்கல்வி
- ஈ) பட்டதாரி

5. அப்பாவின் கல்வி நிலை

- அ) படிக்காதவர்
- ஆ) ஆரம்பக்கல்வி
- இ) மேல்நிலைக்கல்வி
- ஈ) பட்டதாரி

6. குடும்பத்தின் வருமானம்

- அ) ரூ. 2000 குறைவாக
- ஆ) ரூ. 2001 - 4000
- இ) ரூ. 4001 - 6000
- ஈ) ரூ. 6000 மேல்

7. வீட்டின் வகை

- அ) கூரை வீடு
- ஆ) ஓட்டு வீடு
- இ) மாடி வீடு

8. உங்கள் வீட்டில் எத்தனை அறைகள் உள்ளன?

- அ) ஒன்று
- ஆ) இரண்டு
- இ) மூன்று
- ஈ) மூன்றுக்கு மேல்

9. குடும்ப உறுப்பினர்களின் எண்ணிக்கை

- அ) 2 உறுப்பினர்கள்
- ஆ) 3-4 உறுப்பினர்கள்
- இ) 5-6 உறுப்பினர்கள்
- ஈ) ஆறுக்கும் மேற்பட்ட உறுப்பினர்கள்

10. உங்கள் வீட்டில் செல்லப்பிராணி வைத்திருக்கிறார்களா ?

- அ) ஆம்
- ஆ) இல்லை

11. உங்கள் குடும்பத்தில் தோல் சம்பந்தப்பட்ட வியாதிகள் உள்ளதா?

- அ) ஆம்
- ஆ) இல்லை

12. உடல்வளர்ச்சி

- அ) மெல்லிய உடல்
- ஆ) மிதமான உடல்
- இ) பருமனான உடல்

13. சுய சுத்தம்

- அ) நன்று
- ஆ) மிதமான
- இ) மோசமான

**APPENDIX - VII**

**ENGLISH EDITING CERTIFICATE**

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that the dissertation “A study to assess the incidence of dermatological disorders among Paediatric population in Skin Outpatient Department at Government Rajaji Hospital Madurai” done by Ms.Kalyani.C, M.Sc Nursing II year student, College of Nursing, Madurai Medical College, Madurai – 20 has been edited for English language appropriateness.

Name: T. S. KASTHURI

Designation: P. G. Asst .

Institution: Govt. Girls Hr. Sec. Sc.  
Natham

  
Signature

T.S.KASTHURI.,M.A.,M.ED.,  
POST GRADUATE TEACHER ( ENGLISH )  
GOVT.GIRLS.HR.SEC.SCHOOL  
NATHAM - 624401



## APPENDIX - VIII

### TAMIL EDITING CERTIFICATE

#### TO WHOM SO EVER IT MAY CONCERN

This is to certify that the dissertation “A study to assess the incidence of dermatological disorders among Paediatric population in Skin Outpatient Department at Government Rajaji Hospital Madurai” done by Ms.Kalyani.C, M.Sc Nursing II year student, College of Nursing, Madurai Medical College, Madurai – 20 has been edited for Tamil language appropriateness.

Name: ஜி. காலியாபாஜி எம்.ஏ, எம்.எட

Designation: முதுகலை ஆசிரியர் (தமிழ்)

Institution: அரசு மகளிர் மேல்நிலைப்பள்ளி  
நத்தம்.

ஜி. காலியாபாஜி

Signature

ஜி. காலியாபாஜி, எம்.ஏ, எம்.எட  
முதுகலை ஆசிரியர் (தமிழ்)  
அரசு மகளிர் மேல்நிலைப்பள்ளி  
நத்தம் - 624 401.